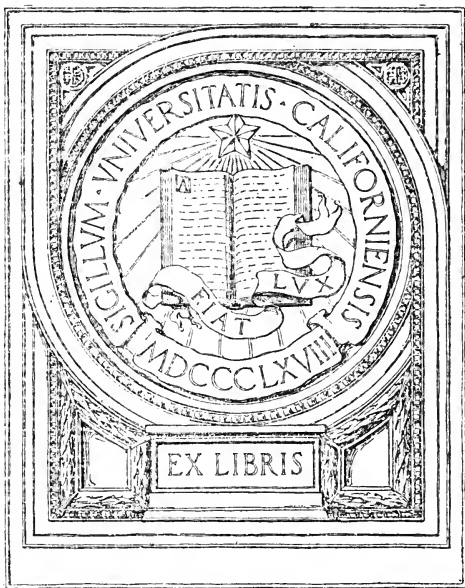


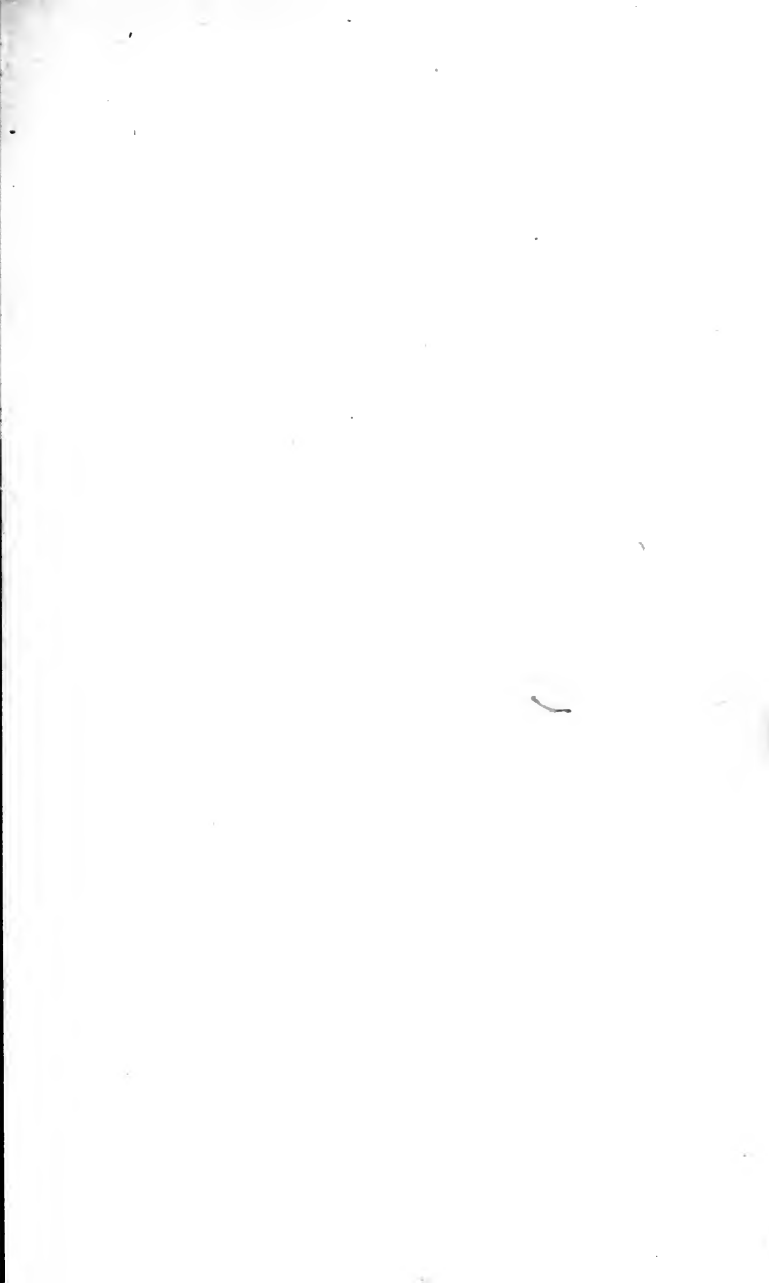
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A CRITICAL HISTORY OF PHILOSOPHICAL THEORIES

AARON SCHUYLER



RICHARD G. BADGER
THE GORHAM PRESS
BOSTON

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PREFACE

Philosophy is the result obtained by the employment of reason in the discovery of those fundamental principles that give unity and harmony to knowledge. It seeks to reduce complexity to simplicity, and multiplicity to unity, and to find the ultimate reality. Facts acquired by observation are explained by reason.

The history of philosophy is the record of these speculations and their results. A critical history of philosophy is a discriminating examination of the theories of the philosophers of the various schools, in order to test and confirm their truth, to expose their errors, to trace the relations of the different systems, the conflict of their principles, the occasions of their appearance, and the order of their development.

To understand the principles maintained by the philosophers of the various schools, the conflict of their principles, the reasons for their theories, and the connection of the various systems, is to understand philosophy itself. The phenomenal world is the product of two factors—the external world and the human mind; philosophy deals with both.

Uncritical thought accepts appearance as the sole reality. Science classifies phenomena and determines their laws, while philosophy attempts to find a rational explanation of phenomena as facts of experience. That is, Science treats of phenomena and their laws, while philosophy seeks for causes and the rational explanation of phenomena. Nothing can be more interesting or more stimulating to thought than the study of the relations of philosophy and science.

It will be found that no system of philosophy is without some merit, though it may be only a crude beginning, or a one-sided attempt to give an account of the mystery of existence. Broad views are requisite, if we wish to avoid the errors of all partial or incomplete systems.

As the mission of philosophy is to give a rational explanation of the phenomenal, it cannot, therefore, disregard the facts of experience, and still be true to its calling. On the other hand, to deal exclusively with phenomena, discarding the necessary principles which afford their rational explanation, is to abandon the guide of reason, or to resolve it into transformed sensation.

Herein is revealed the chief conflict in philosophy, as it exists between the empirical and rational schools. To

PREFACE

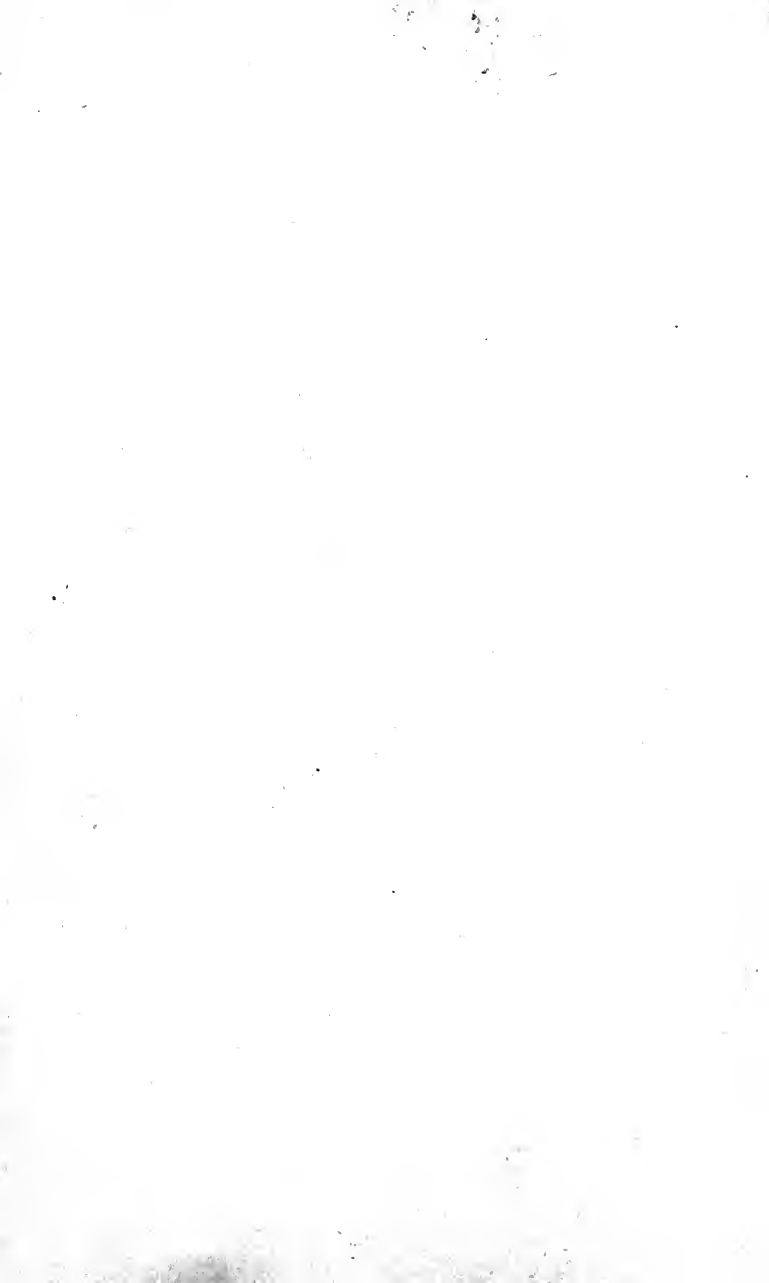
neglect facts is to lose sight of that which is to be explained; to discard necessary principles is to miss their true explanation. Either course is one-sided and doomed to failure. True philosophy is a combination of the two methods—the observation of phenomena, and their explanation by the aid of rational principles.

No study is more interesting than that of the theories and speculations of philosophers. These theories will pass in review in the course of this treatise, and their truth or falsity will be critically and candidly examined. If the reader will study these investigations, neither in a partisan spirit, nor in the temper of controversy, he will not fail of his reward. The distinction between things and ideas accords with the unbiased good sense of mankind.

The proper attitude of a philosopher is not that of a disciple of a great master, nor that of an advocate of a certain school of philosophy, but that of an independent thinker, and as such he will confer a benefit on other thinkers, not because of agreement, but rather because of divergence, and on that account his investigations will receive a more hearty welcome. *Philosophy is the love of wisdom.*

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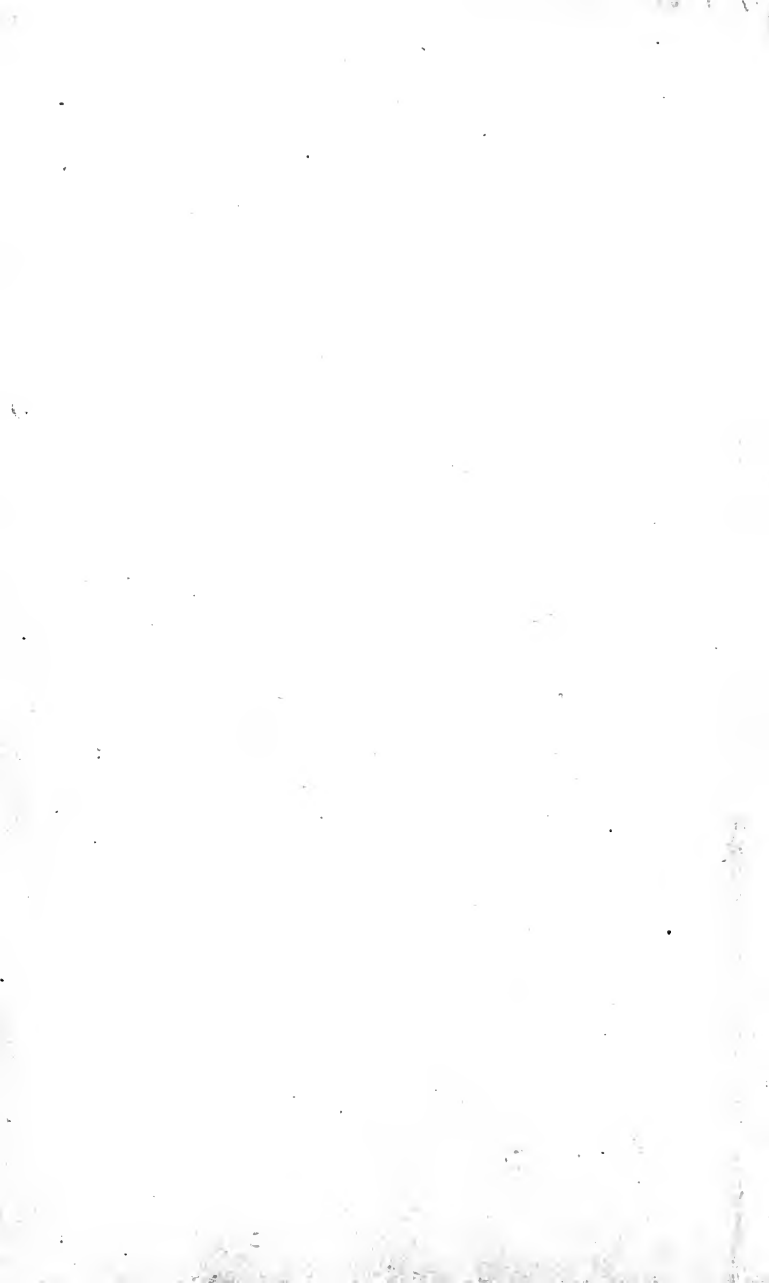


This book seems to
be a perfect synopsis
of Roger's "History of Philos."
which is used in Philos 10A
or not vera?

**A CRITICAL HISTORY
OF
PHILOSOPHICAL THEORIES**

by Mr. Schuyler

But who is Mr.
Schuyler?



A CRITICAL HISTORY OF PHILOSOPHICAL THEORIES

CHAPTER I

The Milesian School

The Milesian School of Philosophy received its name from Miletus, the city of its chief philosophers—Thales, Anaximander and Anaximenes. The term *Ionic Philosophy* is often applied to the Milesian School; but this term is too *generic* as it would include the philosophy of Heraclitus, which is distinct from that of the Milesian School, though the two are species of the same genus. The term *Milesian School* is, therefore, specifically what is needed.

1. *Thales* (640-548 B. C.)—Thales of Miletus was the first of the Milesian Philosophers, and, in fact, he was the first Greek philosopher. Standing by common consent, at the head of the seven wise men of Greece, the leader in philosophic speculation, noted for his mathematical, astronomical and scientific attainments, and for his practical sagacity and political influence, he is to be regarded as no ordinary man.

It is said that Thales predicted the solar eclipse which occurred, according to the Julian calendar, May 28, 585 B. C. The probability, however, is that he only explained the cause of the eclipse after its occurrence. As a civil engineer, he superintended the changing of the course of the river Halys, by order of Croesus. His political influence is seen in that he dissuaded the Milesians from allying themselves with Croesus against Cyrus.

In opposition to the poets who explained the phenomena of the world by the intervention of mythical divinities, Thales sought for the principle of things in nature itself. He was, therefore, a natural philosopher. He found the *ultimately real*, the principle of the universe, in *water*, which he supposed to be endowed with life and motion. The important part which water evidently plays in the economy of nature, no doubt, confirmed him in this opinion. The first principle ἡ ἀρχή, is that from which all things are generated.

It is not probable, as Aristotle conjectured, that Thales was

led to this view by the old mythological notion of the poets, Homer and Hesiod, who had ascribed the origin of all things to Oceanus and Tithys, or because the gods swear by water, for his whole proceeding is in opposition to mythology. His theory was based on the observation of facts; but that water is the principle of things, that it is the living and life-giving principle, affording by its motions, its modifications, its thickening and thinning, a satisfactory explanation of the countless phenomena of nature, cannot, for a moment, be entertained, though it plays no unimportant part.

How then can the theory of Thales be regarded as philosophical? Not because it gave a true explanation of the phenomena of nature, but because of its right methods, in discarding the mythical, and in seeking a natural explanation of things, and because of its aim in attempting to reduce multiplicity to unity and complexity to simplicity. The spirit of the theory of Thales is truly philosophical; for philosophy is the employment of reason in the discovery of those fundamental principles which give unity and harmony to thought. It goes back of phenomena to their conditions and cause. Science classifies phenomena, names and defines the classes, and discovers and verifies the laws according to which the phenomena occur.

2. *Anaximander* (610-547.)—Anaximander lived at Miletus, and was contemporary with Thales, though younger. He was a profound and influential thinker, pre-eminent for his geographical, mathematical, and astronomical knowledge.

Believing that water, the principle of Thales, is too determinate, since any definite form requires explanation, Anaximander conceiving that the ground of all things must itself be without form, yet boundless, and thus permitting the separation from itself of any form, or even opposite forms, assumed ἡ ἀρχή, the origin, first principle, or essence of things to be τὸ ἀπειρον, the infinite, unlimited, unbounded, or indeterminate. The τὸ ἀπειρον cannot, however, be pure unbounded space, which cannot be the origin of any thing; it must, therefore, be unbounded substance, analogous to ether, from which opposite elements, as hot and cold, moist and dry, are separated in the work of creation.

The ἀρχή, or original essence, Anaximander probably held to be formless matter, as distinct from particular

kinds of matter. It must be indeterminate, unbounded substance, τὸ ἄπειρον, original, uncreated and eternal, not exhausted in the production of the universe. To assume it produced by something back of itself, would be to assume the first principle not the first, which is a contradiction.

It is evident that if we assume this first principle to be spirit, instead of matter, and endowed with intelligence and will, we have the God of Theism.

Anaximander held that after the universe has run its course, it will collapse and return to its former nebular condition, which will develop, as in the past, and so on, over and over again, an eternal repetend.

The ἀρχή, or τὸ ἄπειρον, of Anaximander, is the equivalent of the one substance of Spinoza, which he called *Deus vel Natura*. The evolution of the ἀρχή anticipated, by two thousand years, the nebular hypothesis of Kant and La Place.

As a thinker, Anaximander was the most profound of the Milesian Philosophers. He sought for the foundation of things, which was itself without foundation, and therefore original and eternal. It is evident that something, other than space and time, must be original and eternal, otherwise there never would have been any other reality, save space and time themselves.

3. *Anaximines* (588-524.)—Anaximines rejected water, the principle of Thales, as too determinate, also τὸ ἄπειρον, the principle of Anaximander as too indeterminate, and assumed *air* as the first principle. His system may, therefore, be regarded as a compromise between the philosophy of Thales and that of Anaximander.

Anaximines held that by rarification air became fire, and by condensation wind, clouds, water, rocks, metals. He considered air to be the substance of mind or spirit, as indicated by such words as ψυχή, πνεῦμα. The earth he believed to be a great circle, having thickness or depth, floating on the air. The thesis of Thales and the antitheses of Anaximander were thus combined in the synthesis of Anaximines. If water is too definite, air is so too, only perhaps, in a less degree.

4. *Diogenes of Apollonia* (478-428.)—Though not a Milesian, as to residence, Diogenes accepted Air, the principle of Anaximines, as the first principle, and held it to be intelligent; but this is implicit in the view of Anaximines, that air

is the substance of mind or spirit. The assignment of intelligence to air, a material substance, conflicts with the later theory of Anaxagoras, that *Noûs*, or spirit, is the first principle or originator of all other things. Here we see the beginning of a conflict continued to the present day, between Spiritualism and Materialism.

5. *Remarks on the Milesian School.* 1. The Milesian philosophy discarded the mythical explanation of phenomena in favor of the natural. Its point of departure was physical, and its philosophers were natural philosophers. 2. Neither water, the principle of Thales, nor air, that of Anaximenes, can be regarded as the first principle; for they are too determinate, and need to be accounted for. The principle, *τὸ ἄπειρον*, of Anaximander, rests on higher ground, though it was not necessary to assume it material, which Anaximander did. He might as well have assumed it *Noûs*, that is Mind or Spirit, as Anaxagoras afterwards did, or left the alternative between matter and spirit to be decided later, according to which one would best explain the phenomena. 3. The Milesian philosophy is truly philosophical in aim, though there is no reason to suppose that it found the real first principle. 4. It has great interest as the beginning of philosophy.

CHAPTER II

The Eleatic School

The philosophers of this school were Xenophanes, Parmenides, and Zeno. Melissus of Samos was an adherent and supporter of this school, though not an original philosopher.

1. *Xenophanes* (circ. 572-480.)—Xenophanes, the founder of the Eleatic philosophy, was a native of Colophon, a city of Ionia, in Asia Minor. In consequence of the Persian conquest of Ionia, Xenophanes left Colophon, and traveled as a poet and a rhapsodist through the cities of Greece, and finally settled in Elea, a city in Southern Italy. From Elea this school of philosophy derived its name.

Xenophanes held that "there is one God supreme among gods and men, resembling mortals neither in form nor in mind." Accordingly he sharply criticised the prevailing anthropomorphic conception of the gods, who in popular mythology, as in the poetry of Homer and Hesiod, were represented in the likeness of men, and characterized by human faults, and were guilty of base immoralities. He said, in ridicule of this view: "If oxen and lions could paint, they would make the pictures of their gods in their likeness—horses would make them like horses, oxen like oxen." He said, in fact: "Æthiopians make their gods black and snub-nosed; Thracians give them blue eyes and red hair."

Xenophanes was not an Atheist, for he speaks of the one supreme God; he was not a Polytheist, for he considered the other so-called gods, mythical. He was a Pantheist, since he denied the plurality of gods, and affirmed that the universe, not the phenomenal universe but the unchangeable, essential universe, is itself the Divine Being. He condemned the custom of exalting the physical qualities of men, as strength and agility, above their intellectual and moral attainments, as is done, when in public assemblies, the victor in athletic games, the boxer, the wrestler, the runner, is assigned the seat of honor above the philosopher or public benefactor.

Xenophanes held that philosophy is reasonable opinion, only probability, rather than certain knowledge. In common with all the Eleatic philosophers, his thoughts were concerned with the antitheses, being and not-being, the one and the many, the permanent and the changeable, the universal and the particular, assigning reality to being, the one, the permanent, the universal, and denying it to not-being, the many, the changeable, the particular.

Greater importance was assigned to the principles of reason than to the deliverances of the senses; hence the Eleatic philosophy is dialectical, logical, metaphysical, rather than sensational and empirical.

Xenophanes held to the truth of the axiom: *Ex nihil nihil fit*, regarding it as self-evident that nonentity has no power of generation, which is an incontrovertible truth. He maintained that being, in the sense of unchangeable substance, is the principle of the universe, the ultimately real, and that change is not-being, the unreal. As being is unchanging *substance*, void space is not being, is in fact, inconceivable and impossible.

Xenophanes also held that whatever be the apparent changes in the phenomenal world, the one, the permanent, the unchangeable unity, is the only real, the essential universe, the principle of all things, the ultimate and the absolute being, the same from everlasting to everlasting. This view, changed from the pantheistic to the theistic conception, expresses the highest Christian thought of the present day. Theism holds that God is the ground of the universe, though distinguishable from it, while pantheism maintains that the universe itself is God in the unity of its essential being.

The ultimate reality is, without doubt, unchangeable in its essence, though it is not inactive, since it is the eternal *First Cause* whose energy produced the universe. The phenomenal though changeable, cannot be regarded as non-existent; for if non-existent it could not change. The Eleatic philosophy failed to explain change, and, therefore, denied its reality, but the fact of change is not disproved by its denial.

2. *Parmenides* (cir. 520-440.)—Parmenides, the most renowned of the philosophers of the Eleatic school, was held in high esteem by Plato, and greatly venerated by the thinkers of antiquity. He may be regarded as the metaphysician of

the Eleatic School. Unchangeable being, the one only reality which to the mind of Xenophanes, was a poetic conception, became to the mind of Parmenides, a necessary truth apprehended by reason.

Parmenides, therefore, dwelt on the distinction between being and not-being, regarding it as self-evident that *being* is the true, the permanent, the unchangeable, the immutable, the principle, not simply pictured by the imagination, but apprehended, at once, by the reason as the necessary reality, while not-being is apprehended as the false, the transitory, the changeable, the mutable, the unreal. The phenomenal, however, is not refuted by its denial. It is the business of philosophy to account for the phenomenal, not to deny its reality.

The philosophy of Parmenides is known from his poem "Concerning Nature," a fragment of which has been preserved. The poem consists of two parts, the first "*Concerning Truth*," the second "*Relating to Opinion*."

Parmenides represents himself as going in pursuit of truth in a chariot drawn by impetuous horses, symbols of the passions, escorted by the nymphs of the sun, symbols of the senses. At length he reaches two gates where the goddess of justice and truth stood with keys and opened the gates, the one the entrance to the path of light, the other to that of darkness. The first path is the way of reason leading to truth, to being, the constant, the real; the second path is the way of the senses leading to falsehood, to not-being, the variable, the unreal, the non-existent.

It is right here that the philosophy of Parmenides fails. The real is not necessarily the unchangeable; it may be either constant or variable. The sum of the three angles of a plane triangle is the constant two right angles, while the sum of the sides is a variable that may have any length between the limits zero and infinity; but the sum of the sides, though variable, is no less real than the sum of the angles though constant.

According to Parmenides, the changeable, the phenomenal universe of the senses does not exist; but if it has no existence, how can it change? It is not being, if being is the unchangeable. The truth is, the phenomenal, the appearance through the senses, though not permanent, is real as appearance; it finds its ground and explanation in the truth of *being*, the un-

changeable, which is apprehended by reason. An event has its explanation in *cause*, the energy of substantial being.

Viewing the unchangeable as true being, and the changeable as not-being, Parmenides could not reconcile the two, and therefore denied existence to the changeable. Accordingly we have the world of unity, the essential real world, apprehended by reason, and the phenomenal, the unreal world of the senses. Parmenides, however, did not save the phenomenal world by calling it the world of appearances, but annihilated it by calling it not-being in the sense of the non-existent; it exists, if changeable, but is explained by the essentially unchangeable. Being, not the inactive *dead-head*, but substance, energetic reality, involving power or capability of casual activity, is really the true eternal first principle.

3. *Zeno* (circ. 500-440.)—Zeno was not only a philosopher, but a patriot, and died a martyr in the defense of the liberty of Elea, his native city. He is to be distinguished from Zeno, the founder of the Stoic philosophy.

Zeno may be called the logician of the Eleatic school, as Parmenides was its metaphysician. Parmenides affirmed that reason apprehended the unchangeable as the real, and, therefore, since two contradictories cannot both be true, the changeable must be unreal. Zeno undertook to prove, by the *reductio ad absurdum* method of reasoning, that the changeable is impossible.

To prove the impossibility of motion, he said that Achilles, the swift-footed, could never overtake the slow-going tortoise. To use modern measurements, let us assume that, on a straight road, the tortoise is ahead of Achilles one furlong, or 40 rods, the length of one side of a square field containing 10 acres, and that both are running in the direction from Achilles to the tortoise, Achilles running 10 times as fast as the tortoise. When Achilles has reached the first position of the tortoise it is not there, but is $1/10$ of a furlong ahead, and when Achilles has reached that second position of the tortoise, it is $1/100$ fur. ahead, and when Achilles has reached that third position, the tortoise is $1/1000$ fur. ahead and so on ad infinitum; therefore, in finite time, Achilles never could overtake the tortoise; but as he does overtake it, and could actually pass it, we have here a contradiction, on the supposition that motion is real; hence motion is not real. Let us see:

Let t denote the time required, and that Achilles can reach the first position of the tortoise in 1 minute, then he can reach the second position in $1/10$ of a minute, after reaching the first, and the third in $1/100$ of a minute after reaching the second, and so on; hence,

$$(1) \quad t = 1 + 1/10 + 1/100 + 1/1000 + \dots, \text{ ad infinitum.}$$

Multiplying both members of (1) by $1/10$, we have

$$(2) \quad 1/10 t = 1/10 + 1/100 + 1/1000 + \dots \text{ ad infinitum.}$$

Subtracting equation (2) from (1), member by member, we have

$$(3) \quad 9/10 t = 1; \therefore t = 10/9 \text{ minutes} = 1 \frac{1}{9} \text{ minutes.}$$

Observe that excepting the term (1) the second members are alike, and will cancel in the subtraction.

To show that the sum of an infinite number of decreasing terms may not exceed a finite limit, take $1/2$ of anything, the half of the remainder, or $1/4$ of the thing, then $1/2$ of the remaining $1/4$, or $1/8$ of the thing, and so on *ad infinitum*, and we shall have $1/2 + 1/4 + 1/8 + 1/16 + \dots$, *ad infinitum*, which can never exceed 1, or the thing itself, since we never take the whole of what is left, but only $1/2$ of it.

Zeno said a finite body is impossible; for let it be divided into an infinite number of parts, the sum of the parts should equal the whole. The parts either have magnitude or no magnitude. If the parts have magnitude, the sum would have infinite magnitude, since there are an infinite number of parts; but if the parts have no magnitude, the whole would have no magnitude, since the sum of any number of zeros is zero. To refute this reasoning let the body b be divided into n parts, each part is $1/n b$, and the sum of the parts $n \times 1/n b = b$ whatever be the value of n , since the n 's cancel.

Remarks: 1. The Eleatic philosophy, though claiming to be based on reason, was one-sided and therefore imperfect, and doomed to failure.

2. A reaction was inevitable, and this appeared in the philosophy of Heraclitus.

CHAPTER III

Heraclitus and Pythagoras

These philosophers can be conveniently treated in the same chapter. They are not directly related, though each stands as the founder and embodiment of a system.

1. *Heraclitus* (circ. 535-475.)—Heraclitus, the son of Blyson, was born at Ephesus, and was of noble family. He was a descendant of Androclus, the founder of Ephesus. His hereditary right to the chief magistracy he resigned in favor of his younger brother that he might devote himself to the study of philosophy, despairing also of accomplishing anything for the state on account of the corruptions of the people.

Heraclitus stands for the opposition to the Eleatic School, and therefore denied the permanent, which the Eleatics affirmed, and affirmed the changeable, which the Eleatics denied.

The Eleatics could not reconcile the permanent and changeable, and therefore denied the changeable. They took for their principle *Being*, that is the permanent, the unchangeable. They called the changeable *not-being*, the *non-existent*.

Neither did Heraclitus attempt to reconcile the permanent and the changeable. He therefore denied the permanent, and took for his principle *Becoming*, unceasing change, such as we see in nature, in the vicissitudes of summer and winter, day and night, growth and decay. Unceasing change is going on in everything, though at different rates. Things apparently permanent, as rocks, have internal activities which never cease.

Becoming, the principle of Heraclitus, seems therefore more perfectly to represent the universe, as it appears to us, than *Being*, the principle of the Eleatics. *Becoming*, however, is known to us empirically, through the senses, and by consciousness, and is not therefore a principle of reason. Back of all change there must be something permanent, the *First Cause*, the origin of the changing. The *First Cause*, though essentially immutable, in its essence, is not therefore dormant, but

by ceaseless energy is carrying forward the universe to its final consummation. Change, however, cannot be the first principle. Every change requires a *cause*. Motion may be as natural to a body as rest, and therefore needs no explanation; but every change in motion, whether in velocity or direction, requires a cause. The explanation of every change is found in cause, the essential energy of substantial being. Change, therefore, being phenomenal and known by experience, needs to be accounted for, and cannot be the first principle, the true universal. As an event, any change needs explanation. The first principle is, therefore, not change, but *cause*, which is apprehended by reason as energy or efficiency, and manifests itself in every movement as energetic being. The principle of change, and even of being itself, is the energy which maintains its own existence and the stability, the order, and the harmony of the universe. Cause is, therefore, a deeper first principle than the material sensibles of the Milesians, or the being of the Eleatics, or the becoming of Heraclitus. In *cause* we reach the true explanation of change.

His principle of incessant change and his love of paradox led Heraclitus to affirm contraries of the same object, as that a thing *is* and at the same instant, *is not*. Thus, to test this hypothesis, let water at the freezing point be subjected to heat and call the states of temperature, *A*, *B*, *C*, etc., then Heraclitus would say: *A* is *not-A*, and *not-A* is *B*; *B* is *not-B*, and *not-B* is *C*, and so on.

Let us subject this process of thought to a little vigorous logic: If *A* is *not-A* and *not-A* is *B*, then *A* is *B*; if *B* is *not-B* and *not-B* is *C*, then *B* is *C*, and since *A* is *B*, then *A* is *C*, and so on till the water boils. Then the water is freezing and boiling, and at the same instant, has all intermediate temperatures!

The law of thought that conflictives cannot exist in the same object, at the same time, forbids the affirmation that *A* is *not-A*, but no law of thought forbids us saying that *not-A* is *B*. Diverse attributes may exist in the same object at the same time, but not conflictive attributes, since they would destroy each other. A body may be both spherical and red at the same time, but can not be at the same instant, both spherical and cubical.

Heraclitus uttered many profound truths, as: "A man's

character is his fate." "Wisdom is the foremost virtue."
"Lovers of wisdom should know many things."

2. *Pythagoras* (circ. 580-500.)—Many mythical stories cling about the life of Pythagoras, but from the most reliable accounts, those given by Philolaus, a Pythagorean and a contemporary of Socrates, and by Aristotle, and later by Sextus Empiricus, we learn that he was the son of Mnesarchus, an engraver. He was born in Samos, one of the principal and most fertile of the islands of the Aegean Sea. At the age of twenty he traveled for twelve years, visiting Ionia, Phœnicia, and probably Egypt, and finally settled at Crotona, in Magna Graecia, or Southern Italy, where he founded a school of philosophy. He taught mathematics, physics, astronomy, and morals.

According to Heraclitus, Pythagoras was the most learned man of his time. Thales introduced geometry into Ionia, but Pythagoras raised it to the rank of a science. He made many mathematical discoveries among which is the celebrated theorem, still known as the Pythagorean: *The square of the hypotenuse of a right triangle is equivalent to the sum of the squares of the other sides.* In honor of this discovery, it is said, he offered a hecatomb of oxen as a sacrifice to the immortal Gods. In astronomy, Pythagoras, or more probably his successors, taught the theory of a central fire around which revolved the heavenly bodies including the sun and the earth.

In his school at Crotona, Pythagoras not only taught mathematics and astronomy and philosophy, but inculcated the importance of seeking for physical and mental perfection, and of cultivating the art of self-control, good manners, and upright moral character.

Silence for one year was required of the novitiate in the meetings of the society and a rigid discipline was imposed on all the members. Women were admitted to his school on terms of equality with men, a remarkably advanced step for that early age.

Pythagoras was, therefore, a social, moral and political reformer, but the aristocratic character of his society, its secret methods and wide-spread influence, excited suspicion, and aroused the hostility of the common people. The society was broken up by a mob, and its members dispersed. Pythagoras went to Metapontum where he spent the rest of his life in comparative quiet.

The doctrines of Pythagoras have been obscured by legends; disregarding the myths, we may still derive, from the most reliable sources, a fairly correct knowledge of his doctrines. To account for the order of the universe, Pythagoras assumed *number* as the first principle. Mathematical relations are found everywhere, and seem to afford explanation of the order of the universe, which is, therefore, a *cosmos* abounding in harmony and proportion. Even morals were represented by geometric symbols. Thus a square stood for justice which may throw light on the modern expression, "I will do it on the square," and his mathematical principles stood for moral truths. His first principles were, however, arithmetical rather than geometrical, perhaps because the properties, even of geometric forms, were expressed by ratio, which is essentially number. Pythagoras thus conceived number, which is present in all things, to be a truer first principle than water, or indeterminate matter, or air, the principles of the Milesians. A principle of reason, instead of a material principle, was assumed as the explanation of the phenomena of the universe.

It is evident, however, that number does not constitute the essence of things. Thus take ten horses and ten trees. The number is the same. If the number is the essence the two groups ought to be essentially alike, which is not the case. Number, therefore, does not account for the difference, nor for the peculiarity of anything whatever; it affords no explanation of essence.

Pythagoras regarded number as consisting of two parts or elements, *unity* and *plurality*, the one and the many, the limit and the indefinite. Take the number *ten*. Now ten is *one* ten, not two tens, nor three tens, nor any other number of tens, but one ten, yet this one ten consists of ten units, and this constitutes its plurality. The same is true of five or two; but when we come down to one, the element usually plural reaches into its limit one.

Take the numbers 1, 2, 3, 4. The Pythagoreans regarded 1 as standing for a point or monad, 2 for a line or duad, 3 for a surface or triad, 4 for a solid or tetrad. They also noticed that $1 + 2 + 3 + 4 = 10$ the decad. Unity in multiplicity is, therefore, the key to the Pythagorean philosophy.

The Pythagoreans discovered many remarkable properties of numbers. Thus the striking relations subsisting between

the three series of numbers, the first the natural numbers, the second the odd numbers, the third the square numbers, were probably first discovered by them. Write these numbers as follows:

$$\begin{array}{l} 1, 2, 3, 4, 5, 6, 7, 8, 9, 10\dots n \\ 1, 3, 5, 7, 9, 11, 13, 15, 17, 19\dots 2n-1 \\ 1, 4, 9, 16, 25, 36, 49, 64, 81, 100\dots n^2 \end{array}$$

Any odd number is found by multiplying the corresponding natural number by 2, and subtracting 1 from the product; and any square number, that is the square of any natural number, is found by adding the corresponding odd number to the next preceding square number.

Pythagoras also accepted the doctrine of metempsychosis, or the transmigration of souls, which he adopted from the Orphic mysteries; but this doctrine, though fascinating to many minds, is not supported by valid evidence.

As a philosopher, Pythagoras was a remarkable man, and morally he was well worthy the veneration he received. Among his disciples his word was taken as authority, and when any of his followers could say, in support of his opinion, *Ipse dixit*, that is, Pythagoras has said so, that closed the controversy.

What have we found thus far, worthy to be taken as the first principle?

If we add energy, intelligence, and will to the Infinite of Anaximander, or to the Being of the Eleatics, we may find the First Cause or principle of all things; but the first principle cannot be found in the change of Heraclitus, nor in the number of Pythagoras.

CHAPTER IV

Empedocles, Anaxagoras, the Atomists

1. *Empedocles* (circ. 490-430.)—Empedocles, a native of Agrigentum, in Sicily, was a descendant of a noble family, and a man of imposing personality and varied attainments—a physician, a philosopher, a prophet, a magician.

He won a chariot race, as his father, Meton, had done before him. He gained great popularity by his liberality and advocacy of the rights of the people. All eyes were turned on him wherever he appeared, as at the Olympic games, with priestly robes, a golden girdle, and a Delphic crown.

His love of distinction and desire to be accounted more than human, to be worshipped as a god, led him to pose as a miracle worker, and gave currency to the mythical story that after a banquet given in his honor, in his old age, he cast himself into the crater of Mt. Etna, in order that people, not knowing his end, might believe that he was transported to the gods in a blaze of glory. The volcano, however, it is said, betrayed his secret by casting forth his brazen sandals. But the fact that such a story was reported shows that he was human and notoriously vain. Undoubtedly he possessed great talents and in moral character, save his vanity, he may be ranked with Heraclitus and Pythagoras.

The classing of Empedocles, with reference to the schools of philosophy has given rise to considerable discussion. His poem "On Nature" seems to place him in an intermediate position between the Milesians and the Eleatics. He held, moreover, opinions resembling certain other schools, though, as we shall see, he had original views of his own.

Instead of a single principle, as water or air of the Milesians, he assumed four elements—*fire, air, water, earth*. To account for change, the four elements were supposed to be moved by the two forces, *love* and *hatred*, which Empedocles probably regarded as attributes of the four elements, and not as additional elements. Love is exhibited in attraction, concord, union, organization; hatred in repulsion, discord, separation, dissolution.

With the Eleatics, Empedocles placed a low estimate on the deliverances of the senses, holding that reason alone gives true knowledge, but he differed from them in admitting the reality of change, not in the elements themselves, but in their combination and separation, and in the movement of bodies.

Empedocles held that the knowing subject, and the known object must be of like nature—an assumption that has exerted a powerful influence on speculation from his time to the present. Like, according to Empedocles, is perceived by like. We know an external object by means of an internal cognate nature, as external fire by internal fire, and so on for the other elements, or their mixtures. The fact, however, is that unlike things act more powerfully on each other than like, as a hot and cold body affect each other more than two hot bodies or two cold.

Empedocles explained perception by little images coming as effluxes, from the objects perceived through the senses. In case of vision, a two-fold efflux takes place, one from the object to the eye, the other from the eye to the object, the perceived image is the result of the meeting of the two streams. The sensations of smell and taste result from the penetration of particles of matter into the organs of the senses. His explanation of perception, though crude, was the beginning of the theory of the knowledge of external objects, and entitles Empedocles to be called the first psychologist.

His most interesting speculation, however, relates to the origin of plants and animals—love combining the fit elements, and hate separating the unfit unions, leaving the rare combinations of parts suitable to each other, somewhat in illustration of Darwin's theory of the survival of the fittest.

With Pythagoras, Empedocles held the theory of the transmigration of souls, and with Xenophanes, he objected to the anthropomorphic conception of the gods, as presented in the popular mythology of the poets. He declared God to be a pure spirit, without body or members; but he did not develop the theistic view of God as the *Noûs*, or reason, or as the efficient cause of the universe, as did Anaxagoras, or as the upholder of all things by the word of his power. Nevertheless, it is to be admitted that Empedocles, by his originality, gave philosophy an impulse, and hastened its evolution.

3. *Anaxagoras* (circ. 500-428.)—Anaxagoras was a native of Clazomenae in Asia Minor. He surrendered his property to his relatives and relinquished his prospects of political preferment that he might engage in the pursuit of knowledge and devote himself especially to the study of philosophy. With the current philosophical systems, he was well versed.

At an early age he removed to Athens, then rapidly becoming the center of Greek culture. He acquired a distinguished reputation for his attainments in mathematics and astronomy and by his dignity and uprightness, he gained the warm friendship of Pericles and other distinguished citizens of Athens.

His explanation of celestial phenomena, as eclipses, by natural causes, led the people to suspect that he disbelieved in the gods of the popular religion. Bigots, ready to accuse him of Atheism, were not wanting. He was charged with infidelity, and though eloquently defended by Pericles, was banished from the city. He retired to Lampsacus, where he lived greatly respected by the citizens, who at his death, gave him funeral honors and caused to be inscribed on his tomb: "Here lies Anaxagoras, who of all men penetrated farthest into the celestial world." His memory was kept alive by the fact that the school children were allowed a holiday each year, on the anniversary of his death.

In respect to his theory of knowledge, he held that while the phenomena gained through the senses are to be accepted as facts, yet they are delusive and untrustworthy in regard to the true nature of objects, reason alone giving true knowledge of the essence, or the first principles of things.

Not satisfied with a single principle, as water, indeterminate matter, or air, as held by the Milesians, nor with the four principles, earth, water, air, fire of Empedocles, he assumed an indefinite number of primitive elements or germs, originally so intimately mixed that if any portion be taken that portion would contain every kind of element included in the whole, so would a part of that portion, and a part of that part, and so on indefinitely, however small the parts; that is, the parts are similar in kind to the whole and to each other, a condition or state of matter called by Aristotle *ὁμοιομερῆ*. This homogeneous mixture (*μίγμα*), a chaos of elements, may be likened to the *ἄπειρον* of Anaximander.

To account for the cosmos, Anaxagoras postulated an intelligent principle, νοῦς, mind, or reason, separate from the μίγμα the mixed mass. The νοῦς knowing all things, past, present and future, reduced the chaos to cosmos, arranging everything with design according to reason. The original elements were thus separated and rearranged with fitness, till the solid earth, the water, the air, and the fiery ether were collected together, all in their proper places; and organic beings of the vegetable and animal kingdoms were produced and endowed with life and mind according to their rank. According to the Atomists, the cosmos was formed by the combination of unlike elements, but according to Anaxagoras by the separation of unlike elements, and the combination of the like, brought about by the action of the νοῦς.

Stars were thrown off from the earth by its rapid rotation, and ignited by passing through the fiery ether. The sun is a fiery mass, much larger than the stars, and the moon, shining with light borrowed from the sun, is a habitable world, having, like the earth, mountains and valleys, and bodies of water.

Anaxagoras makes the νοῦς a transcendent being who formed the cosmos from chaos with design, according to a rational plan, but who then seems to abandon it to physical and mechanical causes, acting according to natural laws; and for this he was censured by Aristotle, who nevertheless praises him for the hypothesis of an original intelligent cause, which acted with design in forming the cosmos and giving to it law and order. Aristotle says: "When a man said that there was in nature, as in animals, an intelligence which is a cause of the arrangement and order of the universe, this man alone appeared to have preserved his reason, in the midst of the follies of his predecessors. Now we know that Anaxagoras first openly maintained these views."

Did Anaxagoras regard the νοῦς as material or as spiritual? Probably he regarded it as the finest and purest kind of matter as certainly did Archelaus, his disciple. But by making substance the genus of which matter and spirit are the species, we are saved from confusion. Matter is substance, mechanically inert and impenetrable; spirit is substance endowed with intellect, sensibility and will, manifested in thought, feeling and volition.

No system of philosophy can explain *change* without postulating *cause* as an efficient principle.

In the Ionic school a vital force, or life, was assumed as an inherent property of matter to account for its rarification or condensation. In the Eleatic school, so far as being, or unchangeableness, was considered as the only reality, no cause, or active principle, was required to account for its actuality; but even the Eleatics admitted some cause for apparent changes. Becoming, or the continued change of the Heraclitean system, requires cause for its explanation. Number of the Pythagorean system, though expressing the proportion of things, did not account for change, which, they admitted, requires cause. Earth, air, fire and water, the four elements given by Empedocles, were acted on by love and hatred, causing union and separation. The Atomists supposed their atoms endowed with the forces of attraction and repulsion. Anaxagoras assumed *νοῦς* as the efficient cause of the harmony and the changes in the universe. Really, according to all the schools, *cause* is the first principle; *it is their common essential element*.

The system of Anaxagoras is really dualistic, assuming, as it does, two principles—the *μῆγμα* and the *νοῦς*, the *νοῦς* transcendent, apart from the *μῆγμα*, and operating on it from without. The immanence of the *νοῦς* is, however, a more tenable view and is consistent with its continued action in sustaining and controlling the cosmos. Calling atoms points of energy exerted by the *νοῦς*, we have Theistic Monism.

2. *The Atomists*.—Leucippus and Democritus were the principal philosophers of the Atomic school—Leucippus, the founder, and Democritus, the expositor.

(1) *Leucippus* (circ. 490-)—Leucippus assumed two first principles—space and atoms. Space by itself, apart from atoms, is an infinite void, or extension in all directions, without limit. An atom [*ἄτομος*], as seen by the derivation of its name, is an indivisible solid, one that can not be cut into parts. The atomic theory of matter is the theory which asserts that bodies are made up of atoms. The counter theory, that of continuity, asserts that a body can be divided into halves, each half into halves or fourths of the whole, each fourth into eighths, and so on *ad infinitum*.

The atomic theory conceives the atom, whatever be its magnitude, as a perfect solid, entirely filling, without pores, or vacant spaces, the volume enclosed by its surface. This

theory also regards atoms as without qualitative differences but as possessing quantitative differences of magnitude, form, order, position, motion. These two theories correspond to the two ways of regarding quantity—the arithmetical and the geometrical. Numbers are discontinuous, and the passage from one number to another is *per saltum*, but a geometrical magnitude, as a line, is continuous. The question now is, which of these conceptions will best explain the constitution of bodies?

In regard to the limits of divisibility, we may consider four: The *practical* limit is reached when we have pulverized a body, by grinding it into as fine parts as possible by any mechanical means within our power. The *physical* limit is the molecule, which cannot be divided without changing the nature of the body. The *chemical* limit is the atom, two or more of which are the ultimate elements of the molecule. The *metaphysical* limit is zero. To understand this take the atom as solid matter without pores, which, however small, has magnitude, otherwise it is nothing. The atom, though not *actually* divisible, is divisible *in thought* however small it may be, since it must have some magnitude. Its half, therefore, has magnitude, and is divisible in thought, likewise its fourth, its eighth, and so on *ad infinitum*. The parts, as the process of division is continued, continually decreasing and approaching zero as their limit, which they can never reach, are therefore *infinitesimals*, since an infinitesimal is a decreasing variable whose limit is zero.

The latest theory of matter is that its ultimate elements are electrical points thus displacing the solid atom—electrons, positive and negative, the probable constituent elements of matter.

(2) *Democritus* (circ. 470-380)—Democritus of Abdera, the disciple and friend of Leucippus was an extensive traveler, a voluminous writer, and one of the most learned men of his time. He elaborated the atomic theory and applied it in explaining both physical and mental phenomena. According to this theory, atoms are the ultimate components of all things and are themselves uncaused, and therefore eternal. They are in motion; hence space, as the condition of motion, is necessary and eternal. Atoms are infinite in number, but on account of their minuteness being infinitesimal in size, do

not completely fill all space, as proved by the fact of their motion. By their interactions, they produce the various bodies of the universe. Solids are formed by rough atoms which, clinging together, are held firmly in their places. Liquids are composed of smooth, round atoms which freely move among themselves. In gases, the action between the atoms is repellent rather than attractive. The soul is composed of finer atoms. The earth was supposed to be round, not like a ball, but flat like a great wheel, floating on the air.

To Democritus the structure of the human body was an object of great admiration, yet he assigned a higher value to the soul, which consisted of smooth, round, exceedingly minute particles of fire, distributed through the whole body, and is replenished by the act of breathing. The particular activities of the soul have their location in special organs of the body. He explained sight, as did Empedocles, by the meeting of two streams of effluxes, one from the eye towards the object, the other from the object to the eye. In the other senses, perception arises through the sensations caused by the contact of the effluxes with the organs. The brain is the seat of thought, the heart of affection, and the liver of desire.

Democritus discriminated sharply between perception and thought, ascribing to thought the higher value, as alone giving us true knowledge of the nature of things. This accords with the definition: *Philosophy is the rational apprehension and application of first principles*. The imperfection of sensible knowledge is the chief occasion of error; for all knowledge begins with sensation, and there is nothing, according to Democritus, ever to be found in thought, that has not been acquired through the senses by the experience of sensation.

Democritus held that the soul is conscious as long as the soul-atoms properly combine, in sufficient numbers, within the body, and that sleep follows as a consequence of the escape of many of the soul-atoms from the body. Death occurs when all these atoms have left the body, and though they still exist, the personality is broken up by their separation; that is, the soul does not survive death. This conclusion, however, is drawn from the hypothesis of the separation of the soul-atoms at death, which is by no means certain; for the supposition that the soul-atoms can leave the body in organic union is equally tenable, in which case the soul would survive, and the

personality be preserved; and hence the immortality of the soul is not disproved, even if we grant the material hypothesis of Democritus.

The popular gods of mythology, Democritus did not accept, yet he supposed that there are beings in the atmosphere similar to men, but superior to them in knowledge and power, some friendly and some hostile, and that they can cause dreams by sending effluxes to the soul-atoms left in the body of the sleeper. These beings, though longer lived than man, are still not immortal, as they gradually lose their soul-atoms; but Democritus did not know but that these beings may acquire, as well as lose, soul-atoms, and so continue in being and hence be immortal.

Democritus held that necessity, or fate, is above all gods, and that happiness consists in a serenity of mind which is best secured by cheerfully submitting to the inevitable, by moderation of desire and a well-ordered life.

The doctrines of the Atomists were transmitted through their disciples: by Metrodorus of Chios, who drew from the Atomic philosophy, certain skeptical inferences bearing on the possibility of knowledge; by Protagoras, the sophist; by Anaxarchus, who accompanied Alexander in his victorious career; by Nausiphanus who instructed Epicurus in the philosophy of Democritus; by Lucretius, the Latin poet, who accepted and forcibly promulgated the doctrines of Democritus and Epicurus, and who rejoiced in deliverance from superstitions induced through belief in the existence of the gods.

In regard to void space, Democritus disagreed with the Eleatics, who called it *not-being*, and asserted its impossibility, while Democritus affirmed two original realities, atoms and void space, asserting that the motion of atoms implied void space between them into which they could move. Of course void space has no substantial being, but were all substances, whether matter or spirit, swept from existence, infinite space, or pure extension, would remain.

Democritus advanced the theory of perception and hence of knowledge by reducing all the senses to that of touch. In sight, the distant object perceived is not in touch with the eye, but light from the object, by its vibrations, comes in contact with the retina. In hearing, vibrations of the air, coming from a distant object, as a ringing bell, strike the drum of the ear.

In touch, of course, there is contact, and the same is true of taste and smell. The doctrines of the Atomists were seized upon by Epicurus, Lucretius and others, as the means of getting rid of the superstition of the intervention of the gods, as the explanation of the phenomena of nature, by giving a natural explanation. An echo was produced by the reflection of sound waves, and not by the mocking voice of a spirit. The loss to poetry was a gain to science.

CHAPTER V

The Sophists

The Sophists, wise men according to the literal signification of the name, were superior teachers, who took pay for giving instruction in the art of making life a success. They claimed to be practical, and their claim was generally acknowledged to be just. In a dialogue called after his name, Protagoras, the chief of the Sophists, is represented by Plato, who was not inclined to give him undue credit, as saying: "The lesson which I have to teach is prudence and good counsel, both in respect to domestic matters, that the man may manage his household aright, and in respect to public affairs, that he may be thoroughly qualified to take part, both by deed and word in the business of the state." This fairly states the claim made by the Sophists.

The subjects taught by the Sophists, though varying somewhat with the different teachers, included philosophy, the technical points of legal practice, and oratory, including dialectics, rhetoric, and elocution. In giving instruction in these things, the Sophists, for a considerable period, gained great popularity. Wealthy young men flocked to their lecture rooms to receive the advantages of their instruction.

As teachers, the Sophists constituted a class or profession, not a sect or school, as each one taught, in his own way, what he deemed proper; but as philosophers, they held to a common principle, though differing somewhat in the details of their speculations.

A person calling himself a Sophist, that is, a wise man, oversteps the line of modesty, and by claiming too much, naturally exposes himself to criticism. Thus the name Sophist, was brought into contempt, and came to signify a conceited fellow, an unsound reasoner, one that preferred victory to truth.

The Sophists have been often charged with a laxity of morals and accused of corrupting the young men of Athens; but the philosopher Lewes, and Grote, the historian, have vindicated

their personal moral character and clearly freed them from the charge of teaching a morality unacceptable to the Athenian people. To achieve success, as public teachers, they must conform to the accepted morality. But neither Lewes nor Grote has proved the soundness of their philosophy, nor that the drift of their moral teaching had not a tendency to laxity in conduct.

The Sophists inaugurated the era of criticism, which led to the philosophy of Socrates, Plato and Aristotle; but their critical method contained the seeds of skepticism, which germinating bore rank fruit.

Of the Sophists we shall treat chiefly of the principal ones—Protagoras, Prodicus, Gorgias and Isocrates, and incidentally of some others.

1. *Protagoras* (circ. 481-411.)—Protagoras, a native of Abdera, was a friend of Democritus of the same city, and the first to call himself a Sophist. He taught in various cities, and by his eloquence, gained great reputation. He visited Athens on several occasions, and enjoyed the friendship of Pericles.

His views respecting the gods, though simply agnostic, not atheistic, gave great offense to the Athenian people. Fanatical opposition was aroused against Protagoras who like Anaxagoras, was banished from the city, and died in exile, and his books publicly burned in the market place. The immediate cause of his banishment was probably the following passage found in his book entitled *Περὶ θεῶν*: "Respecting the gods, I know neither whether they exist nor what are their attributes; the uncertainty of the subject, the shortness of human life and many other causes, debar me from the knowledge." This statement, reasonably moderate, as it seems to us who do not believe in the mythic gods, could not be tolerated by the Athenians, zealous in the cause of their national religion; and it is to be observed that Protagoras was banished not on moral grounds, but because of the religious intolerance of the people.

It is not with Protagoras as a teacher that we are to deal, but with Protagoras as a philosopher. He assumed for his principle certain doctrines of other philosophers, especially of Heraclitus, Democritus, and perhaps that also of Anaxagoras, that mind is the controlling principle.

According to Heraclitus, "All things flow;" the flux is the

real. But according to Democritus, this flux is phenomenal, subjective, known only through the senses, and there is nothing in thought not found in sensation; but sensation is known only to the individual himself; it is his own experience; no one else is conscious of it; but sensation is known by mind, the real principle.

When Protagoras announced his maxim: *Man is the measure of the universe*, he did not mean by *man* the *class man*, but the *individual man*, and *he* knows only his own sensations. Whatever sensation any man has, that for him is true, and he alone can know its truth, as a fact of experience. Each man, is, therefore, the sole judge of his own good or evil. What seems good or bad to him is good or bad, and to seek the good or to shun the bad is right, but to seek the bad or to shun the good is wrong. This is the ethics of nature, as opposed to the ethics of society; it is egoism, not altruism.

Let us now see how this sensational philosophy becomes critical, skeptical and immoral in its tendency.

The Milesians assumed water, indeterminate matter, or air, as their first principle and by its thickening or thinning, all things are produced; but to account for this thickening or thinning, which as a change, required a cause, they postulated life. Here, as we believe, comes in the criticism of Protagoras who says to the Ionians: 'The changing phenomena you know through the senses; but you do not know, by the senses, the cause of the changing phenomena. You assume life, but this is mere hypothesis, and your philosophy, founded on an assumption, has no solid basis, and is therefore invalid.

To the Eleatics, Protagoras would say: You postulate being, permanent existence, and deny change; but you cannot by sensation know this so-called being, which, as unchangeable, is a *dead-head*, and cannot explain anything; but sensation, as phenomenal, as continually changing, the only thing you can know, you deny. You affirm what cannot be known and deny the reality of the only thing you can know. Of what avail, therefore, is your philosophy as an explanation of the universe? It is vain and preposterous.

To the Pythagoreans, Protagoras could say: You call number the essence of things. Take three men and three trees, the number three, which you call *one* three, expresses the ratio of the collection of men to one man, the unit of the collection

of men, or the ratio of the collection of trees to one tree, the unit of the collection of trees. The ratio three is the same in the two cases; but are the two collections the same? Are the men and the trees identical? The men are not trees, neither are the trees men. It is clear, therefore, that the number three which expresses their numerical sameness, does not express their essential difference. The same thing holds, in like cases, where different things are compared. Number is not, therefore, the essence of things, and the Pythagorean principle of number utterly fails to explain the phenomena of the universe.

To Heraclitus, Protagoras would say: I accept your principle of change, if by change you mean change in sensations, which is the only change we know anything about; but as a Hylozoist, you seem to hold to a principle of life, symbolized by fire, as the cause of change; but cause is not known by sensation, and is, therefore, not known at all.

To Empedocles, Protagoras would say: Your elements, earth, water, air, fire, you suppose to be actuated by love or hatred in combining or separating. You know love and hatred, as subjective phenomena; but you do not know them, as causing the union or separation of your supposed elements, for causes are not known by sensation.

To the Atomists, Protagoras would say: I accept your principle that all knowledge is derived through sensation; and by this principle, which you first clearly stated, I criticize all the systems of philosophy, yours not excepted; for what do you know about atoms? Did you ever see, or hear, or touch, or taste, or smell an atom? How do you know there are atoms? You do not know them by the senses, and therefore do not know them at all. Your philosophy has no basis in knowledge.

To Anaxagoras, Protagoras would say: You assume a chaos of matter with all the elements intimately mixed; but you know nothing of this matter as an objective thing; all you know is phenomenal, subjective experience gained through the senses. You assume *νοῦς*, as an organizer of your supposed mixed matter, as the principle or cause which rendered the chaos of matter the cosmos, or universe of order; but what do you know of the *νοῦς*, objective to yourself, as the cause of the cosmos? I grant subjective intelligences; for I am

conscious of changing sensations which are all that can be known. Your *vous* is, therefore, hypothetical, and your philosophy void, as it lacks a known basis, and will satisfy no one seeking for truth.

Thus the philosophy of Protagoras is both critical and skeptical. Granting the assumption that all knowledge is derived through sensation, all the systems considered crumble into dust, leaving nothing but changing elusive sensations, not even the senses as objective organs. This conclusion is melancholy enough to please the most thorough-going skeptic.

Let us subject to criticism the assumption that all knowledge is derived through sensation, and the skeptical opinion held by the majority of philosophers that sense knowledge is delusive. The Greek philosophers generally have exaggerated the physiological differences in the sense organs of different individuals. There are, of course, great differences in abnormal individuals, but general similarity in average cases. Again the different senses are mutually corrective—a false report of one is corrected by a true report of another. A mere visual image may be mistaken for a material object, or the reverse, but the sense of touch will correct the false testimony of sight. Salt looks like sugar, but when put on strawberries, by the mistake of the housekeeper, the taste of the guests soon detects the blunder. The assertion that sensation is the only source of knowledge, making all knowledge valid only for the individual, is void of truth. Man, the generic man, also the individual, has a rational nature, common to all men. Reason does not depend on the organization of the senses, is not affected by their imperfection, and is essentially the same in all normally developed human beings. Its function is not feeling, but is the apprehension of necessary truth, relating to the conditions of the phenomenal, deducing logical consequences from admitted premises, or rising, by induction, from particular cases to general principles. Do not all rational minds assent to the principle that every event requires a cause? Do not all who understand the demonstrations know the truth of the theorems of Geometry? Have not large inductions been made in science, such as the law of universal gravitation? These inductions furnish the major premise for deductions.

Protagoras assumed that man is simply a bundle of sensations; it would be better to say man is a sensibility; the particular sensations come and go, and depend on many contingencies, but the sensibility, the susceptibility of sensation, abides; yet it does not tell the whole truth to call man a sensibility; man is also a rational being, he has reason, and rational knowledge of necessary truth. Philosophy should not overlook either contingent facts or necessary truth.

What of the moral tendency of sensational philosophy? If each individual man is, for himself, the measure of the universe, the sole judge of his own truth, will he not be inclined to believe that his own good is paramount? That his own pleasure, his individual happiness, and not the welfare of society, is the proper object of his pursuit? His individual pleasures and pains are real to him; the restrictions of society are artificial, arbitrary, and often tyrannical. Why, then, he inquires, should I not obey the superior ethics of nature, rather than the inferior ethics of society? Making this choice, he seeks for sensational pleasures, regardless, as is likely, of the rights or happiness of his fellow beings. His ethics is *Hedonic Egoism*. This tendency, with this result, was found in Epicureanism.

2. *Prodicus* (circ. 465-395).—Prodicus was a native of Iulis, a city in the island of Ceos. He first came to Athens as the accredited agent of his native island, when he was a young man. He soon became known as an eloquent speaker and a successful teacher. The aim of his instruction was to prepare young men for success in life. He was himself a good illustration of a successful man, as he acquired, by his teaching, both popularity and affluence. His moral and religious teaching did not arouse opposition, and may, therefore, be considered as not unacceptable to the Athenian people.

Prodicus is a good illustration of the fact that a Sophist was not necessarily immoral or irreligious, as the Athenians understood these terms. He is the author of a beautiful story called *The Choice of Hercules*, which may be found in Xenophon's *Memorabilia*. The purpose of this production is to incite young men to a noble ambition for a life of virtue and by strenuous effort to achieve results worthy of the approbation of the wise and good, and of the gratitude of their fellow citizens. This clearly shows that the teaching of a Sophist

ist may be better than that to which their philosophy logically leads.

Prodicus considered the mythic gods to be personifications of the forces of nature; hence he did not deny or doubt their existence as personifications, since he did not question the existence of the forces of nature. He was a good rhetorician, both as a writer and as an orator. He did great service by his clear discriminations as to the meaning and proper choice of words, and in his suggestions in regard to style. Less theoretical, but more practical than Plato, he lived a useful and honorable life, highly respected by all who had the honor of his acquaintance.

3. *Gorgias* (circ. 483-375.)—Gorgias of Leontini in Sicily was sent by his fellow citizens, at the head of the embassy, to ask protection for their city against the encroachments of the Syracusans. Having accomplished the object of his mission, he chose Athens for his residence, at the invitation of the citizens, and engaged in giving instruction in oratory. Finally he removed to Thessaly, where he continued to teach for the rest of his life. As an orator he was eloquent, though florid in style and pompous in manner.

In philosophy he was a skeptic. He maintained the following propositions:

(1) Nothing exists. (2) If anything does exist, it cannot be known. (3) If anything exists and is known, the fact of its existence cannot be communicated. In his support of these propositions, Gorgias displays unusual logical acumen, and in this respect he compares well with the Eleatic Zeno.

His proof of the first proposition, so far as it can be gathered and filled out from a fragmentary report, runs thus: If anything exists, it is either being or not-being, or both being and not-being. It cannot be both being and not-being, for they are contradictory; it cannot be not-being, for not-being is the negation of existence; if anything exists, it is therefore being. Now, if being exists, it is either eternal, or it began to be; if it began to be, then it either sprang from non-entity into being, or was produced; it did not spring from non-entity into being, for non-entity being nothing, cannot spring; it was then produced, and if produced, it was produced either by being or not-being, but not-being has no power of production; therefore it was produced by being, which is the very thing to be accounted for, and cannot be the explana-

tion of itself. Being, therefore, did not begin to be, and hence is eternal, and if eternal, then infinite, a perfect solid, filling space without any void, which leaves no room for anything else, and therefore excludes even the phenomenal universe, the only thing known to be real; hence it is false that being exists; therefore it is true that being does not exist; that is, nothing exists.

Gorgias assumes that an eternal thing, the infinite in time involves the infinite in space, which is not necessarily true; to suppose an atom eternal is not to suppose it infinitely large. Now, something is, for the phenomenal is immediately and certainly known, and is therefore real; hence something is eternal; for if not, non-entity must have jumped into being, which is impossible, since non-entity, being nothing, cannot jump. There is, therefore, not only existence, but eternal existence. If one should inquire for the cause of eternal existence, the reply is, such inquiry supposes eternal existence, not eternal. An eternal existence, having no beginning, requires no cause, and in fact, excludes cause; for whatever has a cause has a beginning and is not eternal.

In regard to the second proposition, If anything exists, it cannot be known, Gorgias accepts the principle of Empedocles that the knowing subject and the known object must be of like nature, also the Eleatic signification of *being*, as the unchangeable. He then argues thus: If being is known by thought, then thought must be being, and if thought is being, then everything we think exists, which is not true, for we can think of the non-existent, which makes the non-existent existent, which is contradictory and impossible. Again, if thought is being, it is unchangeable, but we know that thought is fleeting, and is, therefore, not unchangeable, and hence it cannot be being. Therefore the supposition which makes being knowable is false, since it makes changeable thoughts unchangeable; hence being is unknowable; that is, if anything exists, it can not be known.

The above reasoning, instead of proving the proposition that if anything exists it cannot be known, which we know to be false, disproves rather the principle of Empedocles, on which the reasoning is based, that the subject and object of knowledge must be of like nature; it also disproves the principle of the Eleatics, that existing being is unchangeable. Finite existences are certainly variable.

In support of the third proposition, that if anything exists and is known, it cannot be communicated, Gorgias urged the inadequacy of language, that words, at best, are neither things nor the ideas of things, but symbols expressing imperfectly the meaning intended to be conveyed. The hearer, therefore, does not get the exact thought of the speaker, and the same is true of the reader, who does not get the precise meaning of the writer. Words are incapable of expressing exact thought.

The outcome of this sweeping criticism is skepticism; for if nothing can be certainly known, what is called knowledge is simply opinion, and when opinions clash, there is no test for deciding which is true. A low estimate is placed upon truth, since truth, so-called, is resolvable into mere probability. With such views, a sophist would strive, not to establish the truth, but by plausible arguments, to convince his hearers, and gain the victory.

Criticism, however, led to a more thorough study of thought itself in the analysis of the reasoning process, and in the discrimination between valid and invalid arguments, which appeared in the philosophy of Socrates and Plato, and culminated in the logic of Aristotle.

4. *Isocrates* (436-338.) Isocrates was not a sophist in the ordinary acceptance of the term; he was greater, and wiser, and better.

Like the majority of the sophists, he taught oratory, though not the pettifogging oratory of the law courts, but the eloquence of the statesman. In his teaching, he sought to enlarge the mental horizon of his students, in giving them broader views, by discoursing, not alone on Athenian affairs, but on Hellenic interests, involving the welfare of all the States of Greece.

He saw the folly of the petty ambition of the several Grecian cities, Athens, Sparta, and Thebes, to be the ruling power in Greece. Had the States of Greece formed a federal Government, to which all should be admitted on terms of equality, the States preserving their autonomy in local affairs, and cultivating intelligence and moral virtue, there seems to be no reason why Greece might not have gained supremacy in the world, and remained to this day the dominant power.

It was the desire of Isocrates to see the discordant States

of Greece lay aside their jealousies, and unite under the leadership of Philip, of Macedon, for the conquest of Persia. To this end he labored, and even wrote letters to Philip, urging him to make this great conquest.

In his moral teaching, he did not elaborate a philosophic basis for Ethics, but as we cannot have exact knowledge in practical affairs of life, he held that we must be content with those opinions, which are most reasonable, knowledge, so-called, is opinion, and truth is probability.

He was a thorough instructor, and trained the learner to rely on his own efforts in producing satisfactory results. His own essays received that artistic finish in literary form, which made them models of style in prose composition. His merits, as a rhetorician, were recognized by Cicero, through whom his influence has extended to the literature of modern times.

The teaching of Isocrates indicates a healthy reaction against the extreme teaching of the Sophists, and a transition to sounder views and better practices. He may be regarded as a connecting link between the Sophistic and the Platonic Philosophy.

Of other sophists, Hippias of Elis, distinguished for rhetorical talent and scientific attainments, said that law is a tyrant, since it forces men to do contrary to nature; Polus, a rhetorician, a disciple of Gorgias, was distinguished for his style of oratory; Thrasymachus held that might makes right, as seen by Plato's report of him in the first book of the Republic.

CHAPTER VI

Socrates and Immediate Successors

1. *Socrates* (469-399). The principal sources of information respecting Socrates, since he left no writings of his own, are Xenophon's *Memorabilia* and the *Dialogues* of Plato. In addition to these sources, we have also the cross-lights of Aristophanes, the comic poet, and the biographical references to him made by Aristotle.

Aristophanes, the consummate artist that he was, found Socrates a fine subject for caricature, which he employed with telling effect, in the comedy of the *Clouds*. Aristophanes stood for the old regime in morals and religion, and despised the sophists, with whom he reckoned Socrates, not recognizing the difference. Aristotle really gives nothing concerning Socrates not found in Plato, but what he says of him is valuable by way of confirmation.

The *Memorabilia* of Xenophon is apologetic, intended to vindicate the character of Socrates from the unjust reproach of his enemies, by giving his conversations as they occurred. Xenophon was a warm friend and an admiring disciple of Socrates. He was not a philosopher, but a historian and a military officer, and though he intended to present Socrates in a favorable light, there is no reason to distrust his testimony. Plato was a philosopher, a deep thinker, and in his dialogues, Socrates stands, not only as the advocate of his own opinions, but also the champion of those of Plato who, in many respects, had advanced beyond the teachings of his master, so that it is difficult to determine whether the opinion advanced is due to Socrates or to Plato. When Xenophon and Plato agree in assigning a certain opinion to Socrates, we may rely on their united testimony as substantially true.

Socrates was the son of Sophroniscus, a statuary, and of Phaenarete, a midwife. He for sometime followed the profession of his father. A draped group of the Graces, preserved in the Acropolis to the time of Pausanias, the historian,

A. D. 160, was considered to be the work of Socrates. In delivering men of their latent thoughts, he likened his profession to that of his mother.

His appearance was not prepossessing. His low stature, corpulent figure, protruding stomach, thick neck, flat turned-up nose, spreading nostrils, projecting eyes, at once attracted attention, and quite likely incited sarcastic remarks of many whom he daily encountered.

Socrates, no doubt, received the ordinary education of the Athenian youth, and probably, for a time, turned his attention to physical science, which he found to be unsatisfactory, consisting merely of speculations, and yielding no valuable results. The secrets of nature he regarded as beyond the reach of human knowledge, and to pry into them was in his opinion, presumptuous and offensive to the gods.

He was undoubtedly acquainted with the astronomical theories of Anaxagoras, and his doctrine of the *Noûs*, also with the physical opinions of Archelaus, a disciple of Anaxagoras. He probably had listened to the lectures of Protagoras, and took lessons in language of Prodicus.

While the teaching of the sophists gave the skill requisite to secure victory in disputation, and to achieve a successful career in life, it led to an indifference to truth and a laxity of morals, which was utterly distasteful to Socrates, who therefore turned his attention to the study of man, chiefly in his intellectual, moral, social and political relations. He did not call himself a sophist, a wise man, for he asserted his ignorance, but a philosopher, a lover of wisdom, a learner seeking after knowledge. As an investigator, he sought truth wherever it was to be found, especially truth pertaining to man. Socrates, therefore, accepted the precept inscribed on the temple at Delphi, *γνῶθι σεαυτόν*, know thyself, as the injunction most important to be obeyed, and was the first to proclaim the sentiment: "*The proper study of mankind is man.*"

The Pythian oracle had declared him to be the wisest of all men. Socrates wondered how this could be, when he was conscious of his own ignorance. To test the truth of the oracle, and thus to confirm his faith, Socrates questioned various persons reputed for wisdom, as statesmen, poets, sophists, and found them ignorant respecting the very things

of which they professed to have knowledge; yet he failed to convince them of their ignorance, though in attempting to do so, he made them his enemies. He then concluded that the oracle was right in declaring him to be the wisest of men, for he alone knew his own ignorance.

He was a great humorist, and this gave a relish to his conversation to the delight of his friends; but he made many enemies, by occasionally resorting to irony, or biting sarcasm.

He professed to be guided by a *Daemon*, that is by a genius, or spirit, whose voice he implicitly obeyed. What was this genius? This is a question which has occasioned not a little controversy. Was it a guardian angel, his conscience, or the reflex of his own thoughts? It is sometimes said that Socrates heard this voice only in prohibition, restraining him from doing anything that was not best to be done; but that he received positive instructions to pursue a certain line of conduct is evident from what he said to the judges, at his trial, as reported by Plato in the *Apology*: "I should tell you, with all respect and affection, that I will obey the god rather than you, and that I will persist, until my dying day, in cross-questioning you, exposing your want of wisdom and virtue, and reproaching you till the defect is remedied."

Socrates was not a dogmatic philosopher, proclaiming his own opinions as if they were known to be true, neither was he a teacher in the sense that he poured knowledge into the minds of his pupils, but he was an educator, in that, by skillful questions, he drew out what was latent in the mind of the learner. The thing that was latent, however, was not the knowledge, but the ability to know, or the act of knowing. First, however, he led him, by cross-questions, to see his ignorance, or convinced him of holding erroneous opinions, so that his mind, free from error, was in condition to be led, step by step, to apprehend the truth for himself. The learner then did not passively receive the truth, but made the discovery by his own thought.

Socrates accepted, with the sophists, the principle that *man is the measure of the universe*, but differed from them in regard to the meaning attached to the word *man*. By *man* the sophists meant the individual man, who knew immediately only his own sensations, which are fleeting, and differ in different men; but by *man*, Socrates meant the generic

man, or all men having, not only fleeting sensations, but reason, which is essentially the same in all, and that this common endowment, reason, is the essential characteristic of man, and is a far better measure of the universe than the changing sensations. As each normal man has reason, in common with other individuals of the genus, it is possible, therefore, to reach conclusions that will command general assent.

What is the end to be sought? The sophists answered pleasure, sensational enjoyment, but pleasure is best acquired by a successful career, by securing wealth, attaining to a high social position, political power or influence. These things, according to the sophists, are the benefits of virtue. The value of these benefits Socrates did not deny, but contended that there are other benefits, and of a higher order—the rational satisfactions that come from conduct that accords with the dictates of reason. Though Socrates makes happiness the ultimate end of right conduct, yet it is not chiefly hedonic pleasure, which is not objectionable, if properly restricted to what is morally lawful, but chiefly the pure satisfaction resulting from the discovery or apprehension of truth, from the consciousness of rectitude, from noble achievement or heroic effort. Virtue is to be pursued, because it alone gives rational satisfaction, which is the highest happiness, the ultimate good. To be worthy of happiness is happiness itself.

Since a virtuous life yields the best results, why do not men pursue virtue? Socrates answered, they do not, because of ignorance. He reasoned thus: All men seek happiness; but virtue is the only means to true happiness; therefore, all men would be virtuous, or do right, if they only knew what is right; hence virtue can be taught, and is identical with true knowledge. This reasoning would hold good, if all men were like Socrates, who was conscientious, and had complete control of himself; but he seemed not to realize the strength of appetite in the average man, nor the pressure of desire for immediate gratification, while the rewards of virtue are less intense, and very often somewhat remote. It is, however, true that assured high moral conduct requires the supremacy of reason.

Socrates drew around him a throng of enthusiastic disciples of the better class of the young men of Athens. He

frequented the gymnasia and the market places, and conversed with any one willing to hear him or to engage in argument. A crowd soon gathered to listen to the dispute, or to enjoy the confusion of his defeated antagonist, who was drawn on, by one skillful question after another, till he was entangled in a jungle of contradictions; but after exposing error, Socrates led on to positive truth. Socrates showed the importance of the classification of objects into genera, species and individuals, and taught how to frame correct definitions by referring the object defined to its genus, and giving its characteristic or differential quality. He reasoned from analogy, also by induction; but he differed from Bacon, a leader in modern science, in some respects: Bacon said interrogate nature and make your inductions from external phenomena. Socrates said interrogate man, and make your inductions from internal phenomena. Bacon said study things. Socrates said study thoughts. Both performed a service of inestimable value.

The method of Socrates was such as to make enemies; and though he was a law-abiding citizen, and had been a brave soldier, he was accused of not worshipping the gods, whom the city worships, of introducing new divinities of his own, and of corrupting the youth of Athens. He was brought to trial on these charges, and found guilty. Making no effort to conciliate his judges, but rather to exasperate them, he was condemned to suffer death. The part of his speech he made after his sentence, as reported by Plato in the *Apology* is a masterly and noble effort, and in passages rises even to the grandeur of sublimity.

Socrates could not be put to death, according to law, till after the ship should return that had sailed to Delos the day before, for the festival of Apollo. He remained in prison during the interval, which was thirty days, calmly conversing with his friends, as reported by Plato in the *Phaedo* and the *Crito*. He drank the poison hemlock without change of countenance, walked about till his legs became weary, then lay down and calmly fell asleep. Thus died Socrates, the first of the Ethical Philosophers.

It now remains to summarize: Socrates held that man has not only a sensibility, with varying sensations, but also a common rational nature, and can apprehend universal,

necessary truth; that with this view of the generic man, it can be truthfully held that man is the measure of the universe; that it is important to classify things into genera, species, and individuals, to form true concepts of things, and to embody these concepts in true definitions; that reasoning by induction, deduction and analogy reveals the truth; that the mind must see its ignorance, and relieve itself from false opinions, before it can form true opinions; that self knowledge is the most important knowledge; that vice is the consequence of ignorance, and virtue of knowledge; that the ultimate end is rational happiness; that happiness is secured by knowing the wrong and avoiding it, and by knowing and doing what is right; that the right is the rational pursuit of the ultimate end; that Ethics is the most important of all the sciences, and that the virtues it inculcates are to be exhibited in the practical conduct of life.

2. *Immediate Successors of Socrates.* These are Euclid, Aristippus and Antisthenes.

(1) *Euclid* (circ. 445.) Euclid, of Megara, was the founder of the Megaric school. He is not to be confounded with Euclid, the famous mathematician of Alexandria. Euclid was a zealous disciple of Socrates. By diligent study of the works of Parmenides and Zeno, the Eleatic, he became well versed in Eleatic philosophy. He was so ardent a disciple of Socrates, that though the citizens of Megara were forbidden, on pain of death, to visit Athens, Euclid, disguised as a woman, came to Athens by night and listened with delight to the conversations of Socrates. After the death of Socrates, his disciples, through fear of violence from the Athenians, took refuge with Euclid, for a time, at Megara.

The foundation of the Megaric philosophy was the combination of *Being*, the metaphysical principle of the Eleatics with the *Good*, the moral principle of Socrates. Being, the immutable, identical with the *Noûs* of Anaxagoras, or with *φρόνησις*, wisdom, or *θεός*, of Socrates, the one Good, *ἐν τὸ ἀγαθόν*, is with Euclid, the only existent. Evil is not-being, the non-existent. The Good, then, is identical with the God of Theism, with the ultimate reality whose existence, as Spencer declares, is of all things the most certain, or with that power in the universe, not of ourselves, which works for righteousness, according to Matthew Arnold.

The combination of the Eleatic Being with the Socratic Good can be effected only by attributing goodness to being; but this Being, *νοῦς*, or *θεός*, is objective, while the ultimate good, according to Socrates, is subjective, that is, happiness or rational enjoyment. The two principles can not be identified, but can be related as cause and effect. Let the *νοῦς*, the *θεός*, the objective goodness, be apprehended by reason, and loved by the affections of any man, who renounces vice and cherishes virtue, and the result of this mystic union of the divine and the human, is religious experience, the ultimate good, the highest enjoyment of which man, as a rational being, is susceptible. This view, if fully comprehended, is likely to be acceptable to all Theists. *The good is genuine religious experience.*

Euclid's dialectic, or science of thought, differs from that of Socrates, in that he repudiated analogical reasoning as unsound, while he employed the *reductio ad absurdum* of Zeno, which Socrates regarded as sophistical, yet it is powerful when used in refutation.

Analogy and induction may be advantageously employed, if regarded as giving only probable conclusions, to be tested by experience or experiment. The *reductio ad absurdum* method is a powerful form of reasoning, based on the principle that no two truths can conflict with each other, or that all truths exist in harmony. *This is a necessary principle of reason.*

The chief followers of Euclid were Eubulides, the inventor of several paradoxes, the instructor of Demosthenes and the opponent of Aristotle; Diodorus Chronus, who attempted to prove the impossibility of motion; and Stilpo, famous for his lectures.

The disputatious character of the Megaric philosophers fastened upon them the name *ἐριστικοί*, wranglers, and their speculations degenerated into trivial sophisms, as for example the *Sorites*, or heap, which runs thus: Is one grain of corn a heap? No; are two grains? No; are three grains? and so on, till the answer is, yes, there is now a heap. Then one grain makes the difference between a heap and no heap at all, which is ridiculous, if not absurd; but if it is said, no number of grains will make a heap, that is still more ridiculous.

The chief merit of Euclid and of the Megaric School rests in making *being*, the *vous*, or *θεός*, the objective good, and harmony with universal being the subjective. The subjective good, according to Socrates, is rational satisfaction. The objective *θεός*, as cause, acting on the rational and moral nature of man, produces the highest good, the most perfect satisfaction of which a human being is susceptible. The highest objective good is God himself; the highest subjective good is the enjoyment of the love of God which he bestows only on those who pursue truth and love righteousness.

(2) *Aristippus* (435-356). Aristippus of Cyrene, a luxurious city of northern Africa, was the founder of the Cyrenaic school of philosophy. Sent on business to Greece by his father Aristocles, a wealthy merchant of Cyrene, he attended the Olympic games, where he heard of Socrates, and attracted by his fame, he went to Athens and united with the other disciples of the great master.

Aristippus accepted the teaching of Socrates, that happiness is the ultimate end of conduct; but in the term happiness, Socrates included all kinds of enjoyment from sensational pleasure to rational satisfaction. To render the conception of happiness more definite, Aristippus restricted it to sensational pleasure, for even the aesthetic pleasures attending beauty is derived through the senses. While holding pleasure to be the only good, and pain the only evil, Aristippus recommended moderation, or self-control in the pursuit of pleasure. He held that both pleasure and pain are positive; each is more than the absence of the other.

Aristotle calls Aristippus a sophist, probably because he accepted the principle, that we have no certain knowledge of external objects, but only of our sensations, and that there is no common criterion of truth, but each person, knowing only his own sensations, is for himself the measure of the universe. In this we detect the influence of Protagoras but in devoting his attention to moral conduct, rather than to physical science, he was a disciple of Socrates. He held, with Socrates, that the supreme aim of each man is to secure his own happiness; but Aristippus found happiness in pleasure, while Socrates found it chiefly in rational enjoyment. Aristippus, however, advocated justice, since injustice does

not pay; for it incites retaliation, and awakens in the wrongdoer apprehension of danger; therefore to secure peace of mind, it is advisable to obey the laws.

The philosophy of Aristippus is, therefore, a combination of the sophistic and Socratic teaching; but considered as a development of the Socratic philosophy, it is partial, or one-sided.

The reason why the Cyrenaic philosophy advocated the pursuit of pleasure, is found in Aristippus himself, who did not take happiness as embracing both sensational pleasure and rational enjoyment. Aristippus was by nature inclined to pleasure, and he had formed the habit of luxurious indulgence; he would, therefore, interpret happiness to mean sensational pleasure rather than rational enjoyment; hence the drift of the Cyrenaic philosophy to seek present momentary pleasure; for the past is gone, and the future is uncertain.

Aristippus taught philosophy to his daughter, Arete, who in turn taught it to her son, Aristippus, the younger. The Cyrenaic philosophy was the fore-runner of the Epicurean philosophy.

(3) *Antisthenes* (444-371). Antisthenes, the founder of the Cynic philosophy, was the son of an Athenian of the same name, and a Thracian mother. He took lessons in Rhetoric of Gorgias, and afterwards became a disciple of Socrates, whom he greatly admired for his independence in thought and stern moral character.

After the death of Socrates, he opened a school to which foreigners and half-breeds were admitted in the gymnasium called Cynosarges, from which the name of the sect is supposed to be derived, though some derive it from κύων, a dog, on account of the snappish disposition of the Cynics.

Instead of making pleasure the object of pursuit, as did Aristippus, Antisthenes regarded virtue as the only thing worthy of human effort, since it alone gives rational satisfaction. Pleasure he regarded as something to be despised and avoided. Hence the Cynic School is the opposite of the Cyrenaic, though both claimed to be based on the teaching of Socrates. The explanation is this: Socrates made happiness the ultimate end of action; but happiness is a genus resolvable into two species, sensational pleasure and rational satisfaction. Aristippus took the first, sensational pleasure,

as representing the Socratic conception of happiness, and Antisthenes took the second, the rational satisfaction of virtue.

Antisthenes despised effeminacy, luxury, and even beauty, and considered it virtuous to deny himself all pleasure, to endure pain and hardship, to live on coarse food, and for dress, to wear a single rough cloak, ragged and dirty; yet he was haughty and vain, so much so that Socrates said to him: "I see thy vanity, Antisthenes, peering through the holes of thy cloak." No doubt, Socrates, by his own example, gave some countenance to the extreme asceticism of Antisthenes. Though Socrates claimed no merit for his manner of dress, yet in him it was a merit, since he practised economy that he might be able to teach gratuitously.

Admiring virtue for its own sake, and despising vice, Antisthenes had strength of will and energy of character to carry his purpose into execution. He had some literary ability, as his writings were commended by competent judges. When asked to state the advantage of Philosophy, he replied: "Philosophy enables a man to be company for himself."

Antisthenes objected to definitions, as expressing mere subjective impressions, and not the objective attributes of things, and for this Aristotle called him an *ignoramus*. The truth is, a definition expresses our knowledge of an object, and not simply our sensations or impressions; at least, a definition expresses our understanding of an object, our conception, opinion, or belief. Of course, there is liability to error, in our judgment; that is possible; but there is a probability of correctness; it is the best we can do. Antisthenes carried the view of Socrates, that pleasure is inferior to rational satisfaction, to the extreme of regarding pleasure as pernicious, as an evil to be avoided. A proper discrimination between lawful and unlawful pleasures sets the whole matter in a true light.

(4) *Diogenes* (circ. 412-328). Diogenes was the son of a banker of Sinope. The father having been convicted of debasing the coinage, the son, implicated in the same act, fled to Athens. Reduced from affluence to poverty, and attracted by the life of Antisthenes, and his praise of poverty, Diogenes offered himself to Antisthenes, as a pupil. Antis-

thenes repelled him, and raising his knotted staff, threatened to strike. Diogenes replied: "Strike, but your staff is not hard enough to conquer my perseverance." The reply won the admiration of Antisthenes, and gained the day, and Antisthenes received Diogenes as a disciple. As long as Antisthenes lived, Diogenes remained with him, and then set up for himself, living in a tub, which served for a house. The Cynics seemed never so happy as when they were miserable.

Diogenes was ignorant, and contributed nothing to philosophy. Though filthy and disgusting, he gained reputation for wit, and the keenness of his sarcasm. The following will serve as specimens: Going through the streets of Athens in the daytime, with a lighted torch, peering into the faces of those he met, and being asked what he was looking for, replied *a man*. When Zeno's argument against motion was repeated to him, he answered it by getting up and walking. Alexander going to visit him, found him in his tub, and inquired: "What can I do for you?" Diogenes replied: "Get out of my sun-shine." Taken captive by pirates, he was asked what he could do, replied: "Govern men, therefore, sell me to a man who needs a master." Xenocrates, a wealthy Corinthian, struck with this reply, bought him, gave him his liberty, and made him tutor to his children.

Sometimes he found more than his match, as when he entered unbidden into the parlors of Plato, who was entertaining company, and stamped, with his dirty feet, on the rich carpets, saying, "Thus I trample on the pride of Plato." "Yes," said Plato, "*with greater pride.*"

CHAPTER VII

Plato

Plato (427-347.) Plato, the son of Ariston, was a descendant of Solon, and a relative of Critias, one of the thirty tyrants of Athens. His name, at first, was Aristocles, which was changed to Plato, on account, it is said, of the breadth of his shoulders, or perhaps of his forehead.

Having received a good elementary education, he became, at the age of twenty, a disciple of Socrates with whom he continued ten years. After the death of Socrates, he retired with Euclid to Megara; thence he went to Cyrene, where he studied mathematics with Theodorus; from Cyrene he went to Egypt, and conversed with the priests, but was not favorably impressed with their wisdom. He also visited Italy and made himself acquainted with the philosophy of Pythagoras.

Returning to Athens, after an absence of about eight years, he found young men waiting for his instruction, and he opened a school in the grove of Acadedemus, a beautiful park, adorned with trees, and containing a temple suitable as a place for giving instruction, which was presented to him as a gift from his friends. Here he lived, and taught, and wrote, for the greater part of forty years, and in this delightful retreat, his disciples and friends gathered for instruction and conversation.

In the fortieth year of his age, he visited Sicily, chiefly to see Mt. Etna, and went to Syracuse at the invitation of the tyrant Dionysius, who, taking offense at the plainness of Plato's speech, ordered him to be sold as a slave. Anniceris of Cyrene bought him, and immediately gave him his liberty. Plato visited Syracuse in the reign of Dionysius II, hoping to obtain from him territory sufficient for a colony in which he could put his political theories to a practical test, but the land was not secured. He visited Syracuse a third time ~~that~~ he might reconcile Dionysius and his uncle, Dion, who had become enemies, but this mission also proved fruitless.

Plato was amply equipped for his work, having a mind of great breadth and depth, a wonderful command of language, an extensive knowledge of all the systems of philosophy, and of the learning and literature of the age. With Parmenides the Eleatic, he accepted being as the immutable truth of reason, with Pythagoras, number and mathematics, with Heraclitus, becoming, ceaseless change, the knowledge gained by the senses, with Anaxagoras the *νοῦς*, with Socrates, Ethics and the dialectic method. Plato is equal to the sum of all of them, so that we may write:

Plato = Parmenides + Pythagoras + Heraclitus + Anaxagoras + Socrates.

In the dialogues which are generally accepted as genuine, Plato discussed the leading doctrines of Parmenides, Pythagoras, Heraclitus, Anaxagoras, the sophists, and subjected them to the searching criticism of the Socratic method. When Socrates is introduced, as one of the interlocutors, he may, in general, be taken to represent the views of Plato.

The dialogue form largely obviates the objection raised by Plato himself against the method of giving instruction through books, that books can not *talk*, nor answer questions, nor satisfy doubts, nor silence objections, but in a dialogue, objections can be anticipated and answered, and every phase of the subject presented and discussed. The fertile mind of Plato could do this, so that the dialogue, in his hands, is a vivid representation of an actual, earnest discussion.

All of value in preceding systems were introduced into these dialogues, as well as many of their errors, and subjected to a searching criticism, by arguments, pro and con, presented by selected champions. This is well shown in the first book of the Republic, where the view of the sophist, that justice is the will of the strongest, or that might makes right, is presented, with great assurance by Thrasymachus, and ably criticised and refuted by Socrates.

We shall make no attempt to classify the dialogues of Plato according to their subject-matter, which has often been tried with no accordant results, but shall endeavor to present the method and the leading doctrines, so far as positive doctrines can be found in the writings of a consummate critic, who takes more interest in the discussion than in the conclusion, or leaves it without explicit statement. Our

criticisms deal with the doctrines generally accepted as Plato's, rather than with dates or the genuineness and authenticity of documents.

To return to the Republic, whatever may have been Plato's theories of civil government, his more mature political views are presented in the *Laws*, the Republic presents an ideal government, designed rather to teach ethics than politics. In a civil state there are workmen, soldiers, and ruling classes; and the health and prosperity of the state depends on the harmonious co-operation of these classes according to the principles of justice, each class performing its own functions, and refraining from encroaching on the rights of the other classes. The virtues of the working class are industry, temperance, and obedience; the virtue of the soldiers is courage and prompt action, so that they may assist the rulers in maintaining order and repelling invasion; the virtue of the rulers is wisdom, so that they may pass wholesome laws, and justly govern the state.

According to this analogy, Plato treats of the individual, who has sensations, appetites and desires, which liken him to the workmen. The individual also has combative propensities, corresponding to the courage of the soldiers; and above these, he has reason, represented by the wisdom of the rulers in the state, who should be characterized by practical sagacity.

The Republic may be regarded as a polemic against the sophistic view of virtue. The sophist regarded man as individual, as sensational, and his good as pleasure, and hence their ethical precept: *Get as much pleasure out of life as possible*; but this precept naturally leads to lawless gratification, and this was the tendency of their teaching, though some of the wisest of the sophists recommended obedience to the laws, for the sake of avoiding trouble; but as the law is conventional, be unjust if it will bring you wealth or honor, provided you can conceal your injustice, and so escape liability to the law, and the punishment consequent on detection.

On the other hand, Plato taught that, as the prosperity of the state is secured through the wisdom of the rulers, and the subordination of the other classes, each class respecting the rights of the other classes, according to justice, so the

welfare of the individual requires that reason should direct, the will enforce, the appetites and desires submit, all working together in the healthful harmony of the complete virtues of temperance, courage and wisdom; and this organic virtue of justice constitutes the health and the happiness, and greatest welfare of every man, and the welfare of the state.

The sophist held that injustice, when concealed, would be to the individual, preferable to justice, if it brought greater worldly prosperity; but Plato denies this by affirming that injustice mars the symmetry of the soul, introduces discord, engenders disease, and destroys its peace; hence no external advantage can be a sufficient recompense for the loss of the virtue of justice. Thus, while injustice corrupts, disorganizes, degrades, condemns, destroys, justice gives peace of mind, the consciousness of rectitude, which alone is satisfactory to a rational being. Therefore, justice should be practiced and injustice avoided by every right-minded man. It should, however, be remembered that justice is not an abstraction, but is fair dealing; it has for its end the good of all concerned. Not to be satisfied with justice, but to seek to do injustice, masks a corrupt nature. A just man is just because justice alone satisfies his reason and conscience, affording him the highest and the purest enjoyment, and because it promotes the welfare of society.

The doctrine truly distinctive in the philosophy of Plato is, however, his theory of *ideas*. The science of ideas he calls *dialectic*. A sensation is a particular feeling; it is what it is felt to be, and nothing else; but an idea is general; it represents any object of a class. Meeting with any object of a known class, we instantly recognize it, as belonging to that class, because it corresponds to our idea or concept of that class. In thinking, we go beyond a particular object, and think of other objects like it. These objects, though each has individual qualities differing from any qualities of the other objects of the class, have also common or like qualities which entitle them, and all like them, to be taken together as constituting a class characterized by the common qualities. The conception of these common qualities, taken together, which in modern philosophy is called the *concept* of the class, Plato called an *idea*, and Aristotle the *form*, as we shall hereafter more fully explain. The idea is expressed in the definitions.

There is, then, in every object of a class a particular element, the combination of the qualities peculiar to the individual, and a universal element, the combination of all the common qualities of the class; and the conception of this combination of common qualities is the concept, idea or form of the class. Thus, Plato dealt with the *content*, or combination of the common qualities of a class, our conception of which is called a *concept*, rather than with the *extent* or the class itself, including the objects having the common qualities corresponding to the concept. In this respect Plato was followed by Hegel.

It is, however, to be observed that Plato gave to the combination of common qualities, which he called *idea*, an independent existence, apart from the objects of the class, also from the human mind, and from the mind of God. The idea is thus to be distinguished from the concept; for the idea has a real objective existence, according to Plato, while the concept is the *notion* of the idea formed by the human mind or by the mind of God. The idea is the universal. Says Zeller: "This universal does not exist merely in our thought or in the thought of Deity. It exists purely for itself and in itself, and is always in the same form, subject to no change of any kind; it is the eternal pattern of that which participates in it, but separate from it, and only to be contemplated with the intelligence." In the *objects* of a class, we find the *becoming*, the fleeting world of Heraclitus; in the *ideas*, we have the *being*, the permanent world of Parmenides.

Ideas, in the Platonic sense, can, however, be regarded as independent of the human mind, only as God's creations or ideals, the patterns to which the objects of the various classes conform. They are not known to the human mind by intuition, or direct contemplation, as Plato supposed, but by an examination of various objects of a class, abstracting and combining the common or similar qualities, of which combination our notion is the concept. The individuals of a class comprise two kinds of elements—the common elements of the class, and the elements peculiar to the individuals. The common elements classify, the peculiar elements identify. The common element is prominent in classification, the peculiar in identification.

The idea, or universal element, however, cannot, by itself without the particular element, be represented by the imagination; it can only be thought. Thus, take, for illustration, the triangle, a polygon having three sides and three angles. The three sides and three angles, as a combination, constitute the Platonic idea of triangle. Now, can this pure idea, the combination of the sides and angles, apart from the particular elements, be represented by the imagination? If so, it can be exhibited by a diagram drawn on paper or on the black-board; but when the diagram is drawn, a figure always appears having particular, as well as universal elements; it will have one right angle, or one obtuse angle, or all the angles will be acute; also no two sides will be equal, two sides will be equal, or all three sides will be equal; again a triangle may be conceived so small as to be invisible to the naked eye, or so large that its sides would reach the stars. It is therefore, evident that the conceivable particular triangles are infinite in number, while they all conform to the idea, triangle having three sides and three angles. The particular triangle may be erased, as having no particular importance, but the idea *triangle* abides.

With Plato, the idea is the essential thing; a particular instance is non-essential and unimportant, and may disappear from existence or drop from thought as readily as a particular diagram can be erased from the black-board. This is perhaps the reason why certain philosophers called particular instances *not-being*,³ that is, not unchangeable. A tree starting from a seed which sprouts, may grow, for years and for centuries, till it becomes the towering monarch of the forest, then decline, and die and disappear.

Plato held, with Pythagoras, the doctrine of the transmigration of souls, and by it attempted to account for our knowledge of ideas, calling them *innate* or *reminiscences* brought from a previous state of existence; but the theory of transmigration is purely mythical, having no foundation in fact. Is a child born with the idea of a triangle or of a crocodile? He has, of course, the innate power, in germ, which when developed, will give him these ideas, not however, by intuition or direct contemplation, but as derived from the objects of a class by the logical processes of generalization and induction.

Plato's doctrine of ideas is called *realism*, which, however, is not to be confounded with realism in art, or with realism, a doctrine that we have immediate knowledge of external material objects. In opposition to Plato's realism, we have the theories of nominalism and conceptualism—nominalism holds that the name of the class is the only universal; conceptualism holds that the idea or concept has only a mental existence; but the common qualities, corresponding to the concept, exist in every object of the class. The very meaning of the words *idea* or *concept* is that of a mental existence. Idea and concept may, without error, be regarded as identical in thought, though they have been conceived as formed in different ways.

In modern usage, an *idea* signifies a mental picture or image formed by the act of imagination while a *concept* is a logical construction, formed by thought, and has an objective correlate, a corresponding reality independent of the mind. That the sum of the three angles of a triangle is equal to two right angles is a truth independent of any human mind; but a knowledge of this truth, when discovered, is a subjective thought, a mental fact, the mind's own possession. The truth of a triangle, a polygon having three sides and three angles, is objective and is the common or universal, or constant element of every actual or possible triangle, whatever be the particular or accidental values of the sides and angles. The conception or thought of this truth is subjective, and is the idea or concept of the class triangle. These illustrations make the meaning of *concept* clear.

Though the Platonic idea of concept of the class triangle, involving only the essential or universal elements, cannot be represented by the imagination as an image or mental picture, yet the idea of a particular triangle, involving elements, both the essential and individual, can be represented as an image, or mental picture. I can think, but cannot represent, as an idea or mental picture, the genus man; but I can both think and represent the idea or image of a particular man whom I have seen.

The truth involved in ideas or concepts is real, objective, necessary, constant, universal, and is the nexus holding together the individuals of the class; but the idea or concept of the class is subjective, but not innate, since it is the product of the mental activity of comparison and generalization.

If the idea is innate, as Plato held, it is subjective; but he also held the idea to be objective. How can it be both subjective and objective? The necessary eternal truth is objective; the apprehension of this truth is subjective, though not innate, but the product of thought.

What is the relation of necessary reality to the Divine mind? As necessary, it is eternal and therefore coeval with God, whose knowledge of it is an eternal idea or concept, the divine pattern of objective things stripped of their particular qualities. As a divine idea, it is objective to the human mind.

Many interesting points are brought out in the various dialogues. The difficulty of framing good definitions is illustrated in the attempt to define courage in the *Laches*, modesty in the *Charmides*, and friendship in the *Lysis*.

In the *Protagoras* and the *Meno*, the question is raised, Can virtue be taught? The conclusion seems to be reached that there is a natural unconscious virtue, which springs up spontaneously as by inspiration; but Protagoras claims that as virtue is not one but many, he can, by his instruction, improve men in the practice of those virtues which Providence has bestowed upon them.

Is virtue identical with knowledge? That they are not strictly identical is shown by the fact that men of little knowledge are sometimes virtuous, and that men of great knowledge are often vicious. Again men frequently do wrong with their eyes fully open to the evil consequences; and here is ample knowledge but a lack of wisdom. Rational morality, however, of the highest type, requires rational knowledge of the Science of Ethics. The science of virtue can be taught. The subjective virtue, which chooses always to do right, is freely settled by the person himself. The discovery of objective virtue, or what is right in conduct, is an art that can be taught.

Plato gives the Socratic view that all knowledge is latent in the mind, and requires only to be brought out, which may be done by skillful questions. The better view is that the power of discovering truth is innate, though this power, at first weak, may be developed and strengthened by exercise. When the right steps are taken in due order, so as to bring out the evidence.

In the *Euthyphro*, the questions are raised: Does God love holiness because it is holy, or is it holy because God loves it? Does God will righteousness because it is righteous, or is it righteous because God wills it? God has a good reason, no doubt, for loving holiness and for willing righteousness. His love is not arbitrary, neither is his will. He loves what is good because it is good, and wills what is right because it is right. Hence, as God loves the good, and wills the right; knowing his love or will, we know the good or the right.

The *Apology* is a great work of art. It has three parts: (1) What Socrates said before conviction. (2) What he said after conviction, and before the sentence. (3) What he said after the sentence.

Socrates did not seek to gain acquittal, but to give reasons for his manner of life. After conviction, as it was a capital charge, he had the right, before the sentence, of pleading for the mitigation of the penalty; but instead of proposing a milder punishment, he boldly claimed that he was entitled to be maintained at the prytaneum, as a public benefactor. After the sentence, he declares that his accusers have done an unjust act for which they will pay the penalty; but that for himself, as a good man, no evil can befall him, and that he will either fall into an eternal sleep, or go to a better world where there are no unjust judges.

In the *Meno* the pre-existence of the soul, and its immortality are referred to as traditional beliefs; but reasons for these beliefs are given in the *Phaedo* which, with elaborate art, exhibits profound faith in a future life.

The *Symposium* discourses of love, and shows its deep signification by the consequences, as offspring in natural love, goodness in moral love, great deeds in love of fame, perfection of character in love of excellence.

The *Phaedrus* continues the discourse on love, explains the psychology of the soul, asserts the superiority of oral discourse over written and explains the relation of universals to particulars.

In the *Gorgias*, the antagonism between the Socratic and Sophistic views of virtue is elucidated; it is shown that justice is not the same as the will of the strongest; that pleasure is not identical with the good; that only a life of philosophic virtue, not the art taught by sophistic rhetoric, will avail before the righteous judge.

The *Republic* continues the discourse on justice in the state and in the individual, speaks of the higher education and character of the rulers, and describes the declension of the state and of individuals, through descending stages of corruption, to that of tyranny, the stage of final injustice.

Plato's writings are not all consistent with one another. The fact is. Plato was an investigator, an inquirer after truth, in the acquisition of which he continued to make progress all his life. As a philosopher, he was a lover of justice, goodness, truth and beauty, and recognized the idea of each as an objective reality, the object of rational knowledge; but whether any particular thing is just good, true or beautiful, is a matter of opinion.

In certain dialogues as *Euthydemus*, *Philebus*, *Theatetus*, *Sophist*, *Statesman* and *Parmenides*, all manner of questions concerning virtue and knowledge, being and not-being, are raised and discussed, the details of which need not be given, but they mark a transition stage of thought from the *Republic* to the *Laws*.

Plato shows that he is not only a speculative but a practical philosopher, when in the *Laws*, he describes a form of government which he hopes will be adopted by some of the Grecian states, and thus the cause of truth be advanced, and human progress promoted.

In *Ethics*, Plato accepted the extreme views, neither of the *Cyrenaics* nor of the *Cynics*. *Hedonism* is refuted by the unsatisfactory nature of sensational pleasure, and *Cynicism* by the inseparable connection between virtue and the higher form of rational enjoyment.

Plato held with *Socrates* that virtue is identical with knowledge, that *Ethics* is a science that can be taught; but that different classes of the people require different virtues. The rulers need the virtue of wisdom; the mass of the people the virtue of temperance; soldiers that of valor; and all the virtue of justice, which unites and harmonizes the powers of the individual soul as well as the different classes of the state. He refuted the ethics of the sophists, by showing that man's proper nature is not sensational, but *rational*, and that his highest good must come from conformity to his proper nature.

CHAPTER VIII

Aristotle

Aristotle (384-322). Aristotle was a native of Stagira, a Greek City on the western side of the Strymonic gulf, and near Pella, the capital city of Macedonia. From the place of his birth, he is often called the Stagirite. He was the son of Nicomachus, eminent for his learning and authorship of works on Medicine and Natural History, and honored as physician to Amyntas, King of Macedon.

After the death of his parents, Aristotle was assigned to the care of Proxenus, who instructed him in all the known sciences of the time. After the death of Proxenus, Aristotle went to Athens, and studied philosophy and science from the costly books which his abundant means enabled him to purchase.

On the return of Plato from his long journey to the East in search of light, Aristotle joined his school at the Academia, and remained with him, an attentive listener and profound student, for about twenty years. Plato soon recognized the powers of his eager pupil and called him the *Mind* of his School, and as such he was recognized by his fellow students.

After the death of Plato, Aristotle went to the court of his friend Hermias, ruler of Atarneus in Asia Minor, and remained with him three years, when he was appointed by King Philip, tutor to his son, Alexander, then fifteen years of age. Thus the greatest conqueror of antiquity had the greatest instructor.

When Alexander started on his career of conquest, Aristotle opened a school at Athens in the shady walks around the temple of Lycean Apollo, from which his school was called the Lyceum. Aristotle was not appointed successor to Plato in the Academy, probably on account of some divergencies of opinion; but in his own school, he was free to develop his own philosophy in his own way. Walking with his pupils in the shady paths, he conversed with them on

the deep truths of philosophy and science. Thence he was called the peripatetic philosopher, and his school of philosophy the Peripatetic School.

Here, Aristotle remained thirteen years, ardently engaged in teaching and in writing those great works which, for hundreds of years, stood to the world as the standards of philosophic and scientific truth.

Aristotle bequeathed his library, including his own works, to Theophrastus, his nephew and chief disciple, who succeeded him in the Lyceum, and who, in turn, bequeathed them to Neleus, a peripatetic scholar. Neleus took the collection to his home in Scepsis, Asia Minor, and concealed these writings in a vault to prevent them from being seized by the King of Pergamus, who was collecting books for his royal library, and they were lost to the world for 187 years. About 100 years B. C., they were bought by Apellicon, a wealthy collector of books, and taken to Athens. About 86 B. C., Sulla, a Roman general, on taking Athens, seized the library of Apellicon and sent it to Rome.

Tyrannion, a friend of Cicero, collected the manuscripts of Aristotle, and Andronicus of Rhodes, arranging the scattered fragments under appropriate heads, published the authorized and henceforth accepted edition of the philosophic and scientific works of Aristotle.

While the genuine works of Aristotle were concealed in the vault, many forgeries were published claiming to be genuine, but with these we are not concerned. Notwithstanding the forgeries, the true doctrines of Aristotle were quite well-known, even while his books were concealed. Some of Aristotle's works have been lost and are known only by the quotations made from them by early writers.

The following are regarded genuine: Topics, Prior Analytics, Posterior Analytics, Sophistical Refutations, Art of Rhetoric, Nichomachean Ethics, Politics, Art of Poetry, A Physical Discourse, The Heavens, Generation and Destruction, Meteorologies, Researches about Animals. The Soul, Sense and the Sensible, Memory and Recollection, Sleep and Waking, Dreaming and Prophecy in Sleep, Longevity and Shortlivedness, Youth and Old Age, Life and Death, Respiration, Parts of Animals, Organization of Animals, The Metaphysics. The Categories and Interpretation are of doubtful genuineness.

The philosophy of Aristotle is closely related to that of Plato. Both philosophers regarded the agreements of the objects of a class as their essence, and of more importance than their differences, the universal outranking the particular.

The subjective idea of a class, Plato held to be innate, a reminiscence from a pre-existent state. He also regarded the idea objective, existing apart from the objects of the class, as the pattern after which they were formed, to which they correspond, and by which they are identified as belonging to that class. This essential characteristic of a class, Aristotle called the *form*, and held that, as a combination of attributes, it has an objective existence in every object of the class. The form, as found in one object of a class, is similar, though not strictly identical to that found in every other object of the class. Aristotle held that the concept of the form of a class is subjective, though he rejected the mythical notion of Plato that it is a reminiscence brought from a pre-existent state.

Plato attached great importance to the *idea*, and made little account of the individuals; Aristotle found the *form* in each individual of the class. The individuals have importance as exhibiting the form, which is not strictly identical in all the objects of a class, though essentially similar.

How does the human mind gain a knowledge of the form, or combination of similar common attributes? Aristotle answers by careful examination of individuals of a class, and finding their similar characteristics, the combination of which is the objective form. The subjective idea is the concept of the objective form.

In the idea of Plato and the form of Aristotle, we find the mental peculiarities of these two great philosophers. Plato was practical and ideal, Aristotle was practical and real; Plato was literary, Aristotle, scientific; Plato soared into the regions of the super-sensible, Aristotle kept in close contact with concrete facts; Plato's writings show artistic finish, Aristotle's logical thought; Plato is read for pleasure, Aristotle for instruction; each in his way is surpassingly great.

Aristotle's logical treatises were called by Andronicus *The Organon*. There were, however, good logicians before Aristotle, as Zeno, the Eleatic, who was called by Aristotle him-

self, the inventor of dialectic, that is, of logic, as he seems to be the first systematically to employ the *reductio ad absurdum* method; but this method was afterwards also employed by Euclid, the Megarian. All the mathematicians and philosophers are reasoners. Socrates and Plato were skillful and cogent reasoners. Aristotle, however, was the first to reduce logic to an exact and systematic science. Under his treatment, the Syllogism, the type and test of deductive reasoning, was brought to such perfection that it has stood the test of two thousand years.

✓ The question will, no doubt, occur to many minds: Has not John Stuart Mill proved that the syllogism always involves the fallacy called *petitio principii*, the begging of the question? With all due respect to the ability of Mr. Mill, it may be said, unhesitatingly, that he has proved no such thing. He takes the following for criticism: All men are mortal; Socrates is a man; therefore Socrates is mortal. Mill says: If you do not know that Socrates is mortal, you do not know that all men are mortal; and that to be able to affirm the major premise, All men are mortal, you must assume the conclusion, Socrates is mortal; that is, you must beg the question.

Mill selected the most favorable case for his criticism, where the major premise is a probable induction; but to reach this induction, we do not have to examine all the objects of the class, but only such a number as will make the conclusion highly probable. Let us slightly vary the example and raise the question, is Gabriel mortal? There is said to be an angel Gabriel, and I knew a man whose name was Gabriel. Now suppose we say: All men are mortal; Gabriel is an angel; nothing follows; but let us say, All men are probably mortal; Gabriel is a man; therefore, Gabriel is probably mortal. No objection can be urged against this argument. We did not even have to think of Gabriel, when we reached the probable induction, All men are probably mortal. The conclusion is even stronger than the major premise, for the chance of failure is less.

In many cases, the major premise is not a probable induction, but a demonstrated truth. Thus, it is proved by Geometry, that the square of the hypotenuse of a right triangle is equivalent to the sum of the squares of the other sides. Now suppose I wish to know the length of the hy-

potenuse, if the other sides are 3 and 4, respectively. Calling the required hypotenuse h , I reason thus: The square of the hypotenuse is equivalent to the sum of the squares of the other sides; but the other sides are 3 and 4 respectively, therefore $h^2 = 3^2 + 4^2 = 9 + 16 = 25$; therefore $h = 5$.

Is there any begging of the question here? I did not have to know that this particular hypotenuse is 5, to know the major premise, which was demonstrated without any reference to this particular case.

Again, the major premise may be established as a fact of observation. Thus, I stand on a hill, by the side of a lake, and see a boat about a mile from the shore, struggling with a violent storm; finally the boat is wrecked, and all on board are drowned; none reached the shore alive. The next day, I learn from the testimony of a friend, that he saw John Jones on board that boat when it left a neighboring port; suppose this fact, that John Jones was aboard, is confirmed by a passenger on another boat that met the boat that was wrecked a half-hour before. Now I can say all on board a certain boat at a certain time, were drowned; John Jones was aboard that boat at that time; therefore, John Jones was drowned.

I did not have to know that John Jones was drowned, to know that all on board were drowned; for I did not even know that John Jones was aboard. There is no begging of the question here.

To vindicate Aristotle, it is necessary to prove the validity of the syllogism, that it involves no fallacy.

Others say we learn nothing new by the syllogism; but the examples above given prove the falsity of this assertion. In fact, we repeatedly, make discoveries, that is, learn new facts, by deduction. One principle will often give an indefinite number of deductions, as in the case of finding the hypotenuse of a right triangle, when the other sides are given. Pythagoras should not be blamed for offering a hecatomb of oxen in view of his great discovery.

Induction and deduction are complementary divisions of logic. It was glory enough for Aristotle that he perfected the theory of deduction. The theory of induction was left for the moderns, as Bacon, Galileo, Whewell and Mill; yet, Aristotle employed induction, though he did not perfect its theory.

Aristotle's distinction of causes as four, material, formal, efficient, and final, has exerted no little influence on the course of speculation. The material cause is the kind of matter or substance out of which a thing is formed; the formal cause, corresponding to the idea, form, or concept, is that combination of attributes in the thing which identifies it as belonging to a certain class; the efficient cause is the energy which produces an event; the final cause is the purpose or end for which a thing exists or was made. These are the main points in Aristotle's *Metaphysics*.

The distinction of propositions as conditional and categorical, and of categorical as universal and particular, affirmative and negative, and their opposition as contrary or contradictory, the laws of distribution of terms, the conversion of propositions, the dictum, the doctrine of figure and mood, the detection of fallacy are all valuable and permanent contributions made by Aristotle to the science of logic.

The categories are those distinct predicates which may be affirmed of a subject. Aristotle named ten: substance, quantity, quality, relation, action, passion, place, time, position, possession. These are of no great importance, as the number may be increased by adding degree, necessity, actuality, probability, possibility and so on or diminished, as place and position run into one another. It is evident that the topics are heads of discourse, or commonplaces, more suitable for rhetoric than for logic.

In *Sophistical refutations*, Aristotle exposes fallacy in such an exhaustive and thorough manner, that scarcely an example of unsound reasoning can be found that is not reducible to one of the specific classes. Aristotle calls *eristic*, arguing for victory; and *sophistry*, arguing for gain.

In regard to *Ethics*, it is instructive to compare the views of Socrates, Plato and Aristotle. Socrates identified virtue with knowledge and held that as man seeks his own happiness, which can be secured only by doing right, therefore a man would always do right, if he only knew what is right. The objection to this view is that in many instances, persons knowing the right, refuse to do it; under the stress of appetite, passion or desire, they deliberately do what they know to be wrong. It is, however, true that the highest moral action must accord with moral insight; but there must also be

a willingness to do the right, and the right must be carried out into conduct by executive act. Virtue requires knowledge, will and conduct, but accurate knowledge, a willingness to do right, and skill in execution are the elements of wisdom. If Socrates had identified virtue with wisdom, little objection could be made to it; and this reminds us of the saying of Solomon: "Wisdom is the principal thing." To know the right, to will the right, and to do the right is to be virtuous, is to be wise. The intellectual virtue of clear insight is essential to the practical virtue of right conduct determined by right will.

Plato's analysis of man as a three-fold being, sensitive, combative and rational, lead to his view that virtue, which he identified with the health and happiness of man, is best secured by placing the reins of government in the hands of reason. This view goes far in the identification of virtue with wisdom; but he did not, however, sufficiently recognize the function of the will, though his theory is a noble view of virtue as the perfection of moral excellence.

Aristotle's theory of Ethics is not to be regarded as antagonistic to Plato's; it is an extension; he did not question the fact that reason ought to rule, but showed why it should rule. What is the chief good or ultimate end of man? Aristotle unhesitatingly answers *happiness*. As the distinguishing characteristic of man is not life, which is possessed by a vegetable, nor sensation, which is felt by an animal, but reason which he alone possesses, his happiness, in its highest or characteristic form, must be rational satisfaction. Aristotle says: "We may safely then define a happy man as one whose activity accords with perfect virtue, and who is adequately furnished with external goods, not for a casual period of time, but for a complete or perfect lifetime."

Aristotle attaches importance to the will as well as to the reason. Virtue requires that the will freely choose according to the light of reason; and in this choice, the *mean* is to be followed rather than *either extreme*. Thus true courage avoids the extremes, rashness on the one hand, and cowardice on the other; generosity is neither prodigal nor stingy; hence, Aristotle makes moderation or temperance the essence of all virtue. By moderation or temperance, Aristotle evidently means self-control, that rational will power by which a man

keeps himself in the true path of duty. Aristotle insists on the *practice* of virtue. A child is without moral character; this is to be formed by a proper education; that is, he should be taught, not only *to know*, but be trained *to do* the right, and in this respect, Aristotle is again in agreement with Solomon; "Train up a child in the way he should go." Training in the way he should go forms right habits and right habits crystallize into good character, and good character tends to permanence.

As a man's chief good can not be attained by him in a state of isolation, but only in society, under a government, Aristotle passes from Ethics to Politics. He emphasizes the value of friendship and describes man as a political animal. In treating of politics, he first reviews what has already been done by other writers on this subject, and then proceeds to state his own views.

The work, though unfinished, is full of interest, and throws great light on Grecian history. The book displays great knowledge of human nature; it gives to the individual and the family their due importance, and resists the tendency to communism found in Plato's Republic.

Aristotle wrongly upheld the institution of slavery, as based on nature, and narrowly denounced the taking of interest for the use of money. His ideal state, however, compares favorably with that of Plato.

Aristotle wrote on Rhetoric and Poetry, and on the various branches of science. For the illustrations of his works on Natural History and other branches of science, the patronage of Alexander furnished him with ample means.

After the death of Alexander, the Athenians accused Aristotle, of Macedonian tendencies and of Atheism. He retired to Chalcis in Euboea, which was under Macedonian rule, and there closed the life of the most learned and accurate scholar, the most profound and original philosopher of Antiquity.

After the death of Aristotle, the Peripatetic School was continued by Theophrastus, Strato, and others.

The old boy seems to be an
upholder of the profd system -
wonder what he thinks of
man

CHAPTER IX

The Epicurean and Stoic Schools

1. *Epicurus* (342-270.) Epicurus was a native of Samos, and the son of Neocles, a teacher of grammar.

When only thirteen years of age, on being told that all things arose out of Chaos, he asked: Whence came Chaos? He was referred to philosophy for the answer. To the philosophy of Democritus he applied himself, but found nothing back of a chaos of atoms, and void spaces between the atoms; for here Democritus began.

At the age of eighteen, he visited Athens, where he remained one year. Thence he went to Colophon, Mitylene, and Lampsacus, and finally returned to Athens, when he was thirty-six years of age, where he opened a school in a quiet garden, and remained there the rest of his life.

The philosophy of Plato or of Aristotle was too deeply reasoned, too difficult to understand, to become popular, and a reaction was inevitable. Something more easily to be understood, something more practical was called for, which would serve as a comprehensible guide to life.

The Epicurean School of philosophy, so-called from the name of its founder, may be regarded as an out-growth, modification, and improvement of the Cyrenaic School founded by Aristippus. It is a combination of the atomistic philosophy of Democritus with the Hedonic theory of Aristippus. Happiness was considered by Epicurus as the end of human pursuit. He did not, however, restrict happiness, as did Aristippus, to sensational pleasure, but extended it to the higher pleasures of the intellect and of friendship. He also taught that pleasure is to be enjoyed in moderation, since excess results in disaster.

Epicurus was himself a temperate man. He was satisfied with plain fare, and with his trusted friends, he passed a peaceful and happy life. He taught the importance of banishing from the mind all care and worry, as the fear of

death or of the gods. He said when we are alive, death is absent, and when death comes, we no longer exist. Why fear the gods? They are too much taken up with their own affairs to trouble themselves with the affairs of mortals. Religion is resolvable into superstition.

By happiness Epicurus meant freedom from pain, fear, anxiety or trouble, and not only so, but the positive enjoyment of intellectual, social or sensational pleasure. He considered free will and prudential wisdom the essence of virtue. Thus, virtue leads one to avoid crime, to obey the laws, and comply with the accepted moral customs of society, for thus he would escape the danger of detection and punishment for crime, and gain the reward attending a good reputation, that is, one avoids crime only because of fear of detection and punishment. No estimate is made of the approval or condemnation of conscience. Then morality proceeds from a calculation of advantage. This is not high rational ethics; it is not even utilitarianism; it is *hedonism*, or the placing of happiness in sensational enjoyments.

The Epicureans have fallen into bad repute, partly through their own fault, and partly through the misrepresentations of the rival schools. In fact, they are too much the devotees of pleasure, which is quite likely to degenerate into sensational pleasure of the lowest sort. The word *Epicure* has come to signify one given to the pleasures of the table. The Epicureans have been stigmatized by their opponents as sensualists. Epicurus himself, however, recommended the higher virtues, and lived a moral life.

The truth is, the lower pleasures, as those of the table, may be innocently enjoyed, when lawful and restricted within reasonable limits; but the purer and higher enjoyments come from intellectual pursuits and a life of good will and righteous conduct.

Epicurus was a voluminous writer, but his works, except fragments and quotations, have been lost, enough, however, can be gathered from the fragments to reveal his system. He regarded philosophy as the art of life, and not the Science of truth, as it was considered by Plato and Aristotle. The conception of Epicurus is that of practical life, that of Plato and Aristotle is the conception of theoretical philosophy. The thinking of Plato and Aristotle was on a much higher plane than that of Epicurus.

In justice to Epicurus, it is to be said that he held that the true art of life, put in practice, would secure, not simply the pleasures of the moment, but lasting, even life-long, satisfactions. This requires a knowledge of science and freedom from superstition and needless fears. Reason is required to know and will to do. Knowledge supplants ignorance, and the will carries into execution the decisions of reason. The agreeable is to be sought for, and the disagreeable is to be avoided, but not the momentarily agreeable, followed by lasting pain. *The greatest good for the entire life* is the accepted motto for conduct; but common sense, which is, according to Epicurus, the best philosophy, is the guide in the practical affairs of life, and the surest means of finding the greatest possible amount of happiness.

The Epicurean philosophy, notwithstanding its defects, had some truth, which appealing to common sense, gave it strength and increased its following, till its adherents were widely spread over the world.

The most renowned advocate of Epicureanism was the Roman poet Lucretius, who in his great poem, *De Rerum Natura*, hailed the doctrine of Epicurus as the deliverance from superstitious fears. The atomistic explanation of the universe by Democritus would banish the gods from the world, and restore tranquillity to the mind of man. If to banish false gods is deliverance from fear, faith in the true God is the joy of hope.

Epicureanism, as a theory, and as actual life, has had more votaries, counting all those in pursuit of pleasure, than any other system of philosophy the world has ever seen.

2. *Zeno* (342-270). Zeno, a native of Citium in the island of Cyprus, was the founder of the *Stoic school of philosophy*, so called from *στοά* the porch in Athens, where he taught. The Stoic school is an out-growth of the Cynic philosophy, a one-sided development of the Socratic doctrine.

Zeno, who had been a merchant, having lost his goods by a shipwreck, became a disciple of Crates, a philosopher of the Cynic school.

Becoming dissatisfied with Crates, he joined the school of Stilpo of Megara. Not yet satisfied, he entered the Academy then conducted by Xenocrates and afterwards by Polemo, where the Platonic Philosophy was taught.

After twenty years of laborious study, at these various schools, he opened a school of his own in the porch. His school was, at least in part, the product of the interaction of oriental speculation and Greek thought, which took place after the time of Alexander.

The philosophy of the Academy and that of the Lyceum still existed, but these were eclipsed by the more intelligible doctrines of Epicurus and Zeno, as these were regarded the more practical.

The school of the Stoics may be divided into three periods, the old stoa, developed and directed by Zeno, Cleanthes, and Chrysippus; the middle stoa, or the transition period, directed by Diogenes of Seleucia, Boethius of Sidon, Posidonius, and Panaetius, who carried the doctrine to Rome; the later or Roman stoa of which the chief ornaments were Seneca, Musonius Rufus, Epictetus, and the Emperor Marcus Aurelius.

Zeno began, as a Cynic, in discarding pleasure, avoiding all perturbation, and in making reason the guide of life. He declared *apathy* or indifference to the joys or sorrows of life to be the proper state of mind for a philosopher. A sage is characterized by magnanimity, serenity and wisdom, in dealing with his fellow men, or with the ordinary affairs of life. In regard to pleasure or pain, wealth or poverty, honor or obscurity, or other accidental circumstances, he is to manifest the apathy of entire indifference. It is, however, true that the Stoics cultivated the friendship of those of their own persuasion; but for people in general, their attitude was neither that of sympathy nor antipathy, but apathy, the coldness of entire disregard.

Why did the Stoics encourage suicide? Pain is not to be desired, but rather to be avoided; yet when unavoidable, it is to be borne without murmuring. Certain disabilities, as the loss of health or a limb, the Stoic considered as an indication of providence that he is no longer on duty, and by the act of suicide, he proved that life itself was regarded with indifference.

In common with the philosophers of other schools, the Stoics said: *Live according to nature*; but they held with Socrates that the characteristic nature of man is reason, not feeling; hence, a rational life, not a life of pleasure, is the

true life of man. For the Stoics, the ideal end is virtue; for the Epicureans, pleasure. Both said: *Follow nature*; but in case of the Stoics, the true nature is reason, leading to a virtuous life; while in case of the Epicureans, the true nature is sensibility, leading to a life of pleasure.

Both systems are one-sided. Man has both reason and sensibility; he can pursue virtue, or enjoy pleasure. Why ignore either part of man's nature? Evidently this should not be done, if the precept, *Follow nature*, is right. The question is, which shall have sway? Shall appetite, or passion, or desire? Man has sensibility in common with the brute; his reason is characteristic of himself, and as the higher attribute, as that which is distinctively human, it is entitled to control. It may, therefore, be concluded that under the guide of reason, man may properly enjoy the satisfaction that comes from the lawful gratification of his sensibility, or from the exercise of any of his powers. Banquets may be the means of dissipation; feasting may be carried to excess; but to take a modern illustration, what reasonable objection can be urged against a family Thanksgiving dinner, or to the Christmas turkey?

Zeno, though a one-sided philosopher, was highly esteemed by the Athenians, who entrusted him with the keys of their city, and on his monument they carved the inscription: His life was in accord with his teaching.

3. *Cleanthes* of Assos in Troas, originally a boxer, first attended the lectures of Crates, the Cynic, and afterwards those of Zeno. Being poor, he worked at night that he might support himself while attending by day the lectures of Zeno. His apparent idleness awoke suspicion, and he was brought before the Areopagus, but the facts becoming known, he was offered a present of ten minae, which he refused. He was slow to learn, but held fast what he acquired. He attended the lectures of Zeno nineteen years, but his perseverance and high moral qualities were amply rewarded; for on the death of Zeno, he was chosen to be the head of the Stoic School.

His most original contribution to philosophy was the enunciation of the principle that the varying tension of the one substance, a purely physical fact, produced, by its stress, all the changes of the universe. This fertile principle was

employed with effect by the Stoics. It may be identified with the ether of science, the one substance of Spinoza, the ultimate reality of Spencer, or by making it spiritual, with the God of Theism.

Cleanthes believed that Jupiter had his throne in the sun. He wrote a sublime hymn to Zeus, from which it is usually said that Paul quoted in his speech at Athens, that we are the offspring of God. It was, no doubt, the sentiment of Cleanthes; but Paul quoted exactly from the poet Aratus: *Τοῦ γὰρ καὶ γένος ἐσμὲν.*

4. *Chrysippus* succeeded Cleanthes as the leader of the Stoic School. He elaborated and systematized the Stoic doctrine and fortified it, so as to make it secure, as he supposed, against all attacks. Zeno had declared that grammar and mathematics were useless; but Chrysippus saw that this narrow Cynic view would not do for a system which aspired to be a great school of philosophy, and, therefore, set himself to improve all branches of learning. He held, however, that the sciences were not to be cultivated for their own sake, nor to satisfy an idle curiosity, but because of their bearing on life, and that, therefore, Ethics is the crowning science, Logic and Physics were to be held as subordinate.

Stoicism is dynamic materialism, and as matter is the only existence, according to the Stoics, it is monism or pantheism. The Stoics do not call in question the fact of the soul, but assert that it is material. In asserting that all substance is corporal, the Stoics are in agreement with the Epicureans; but the idea that the tension of matter is the cause of the ceaseless change in nature is peculiar to stoicism. Matter is acted upon by matter, and as the Stoics held by matter only.

Instead of the ten categories of Aristotle, the Stoics offered four: Substance, essence, mode, relation. They were adepts at analysis, and noted for their skill in hair-splitting. Along with logic, they cultivated Grammar, Rhetoric, and Dialectic, or the art of disputation. Many of their distinctions are still in vogue.

The growing influence of skepticism awoke the Stoics to the importance of finding some criterion for truth, which would enable them to discern the difference between knowledge and opinion. They rejected the *ideas* of Plato, adopting

with some modifications, the doctrine of *forms*, as taught by Aristotle, that our notions or concepts of things are derived from an examination and comparison of the objects of a class, by finding their essence or formal cause; and by this principle we are enabled to form objects into classes.

The Stoics endeavored to answer the queries of the skeptics: How does the mind perceive? What is the relation between sense and the object? How do we know that the appearance corresponds to the reality? A square tower, at a distance, appears round, from which it appears that perception does not apprehend the object as it is, but that it gives a picture of our conception of the object. The Stoics insisted on clearness and distinctness, qualities which Descartes, long after, employed as tests of truth.

The hypothesis of Empedocles that there are images detached from the objects, and representing them, through whose intervention the objects are seen, is not satisfactory for we might as well perceive the objects as their images; but if we perceive the images and not the objects, how do we know that the images fairly represent the objects? This we could not know, unless we have antecedent and separate knowledge of the objects, in which case the images are altogether superfluous.

The theory that there are three kinds of opinions, the probable, the improbable, and the neither probable nor improbable, proposed by the Stoics, gave no certain criteria by which to distinguish the true from the false. As no criterion sufficiently certain and of universal application, could be found, the Stoics fell back on common sense, as the best that could be done.

Let us, at this convenient point, study the process of *perception*. Of course, perception begins as a psychological act, with sensation. If external objects did not, in some way, affect us, giving us sensations, we should not be aware of their existence; but before sensation, if perception be a fact, we must postulate the physical object to be known, and the subject which knows with its physiological sense organs and mental powers of perception. There must then be the synthesis of subject and object, not their identity, but a relation allowing the mechanical action of the object and the reaction of the organ, as when light is radiated or reflected

from the object to the eye, or when waves of air propagated by a vibrating body reach the ear, or an object in contact with the organ of touch, and so on for taste and smell. The excitement of the organ, caused by the object, is accompanied by the sensation or feeling of which we are conscious. Reason now intervenes and apprehends the necessity of a foreign cause, since the soul is passive in sensation, also the necessity of the subject of the sensation, which it identifies with itself, the Ego or what one means when one says I. The judgment, then, guided by experience, infers what the particular cause is which produces the sensation; and now the imagination ideates or pictures the cause, according to the inferential judgment, and thus completes the act of perception. All this is done, so readily and spontaneously, from the habit of continual practice, that the complex act seems like immediate apprehension.

The liability to mistake lies in the judgment as to the objective cause, which approaches certainty only in familiar cases, or when one sense re-enforces another, as the report of the eye is supported by that of touch. If there is a mistake in the judgment, the ideated picture is incorrect.

The idea is not something perceived; it has no existence previous to the perception, but is the result of the act of perception, and is constructed by the imagination to embody our discoveries, knowledge, or belief respecting the object perceived; the idea is conceived rather than perceived; it is constructed as a mental picture representing what we know or believe we know. In the judgment, as to the cause of the sensation, is found, as before said, the element of uncertainty; for the judgment, in general, gives only the more or less probable; but the probability varies between the limits impossibility and certainty, and the degree of probability is estimated by experience. Some images are known to be mere phantasms; others, as the appearance of well known objects, are held to be decisive as to the actual presence of the objects, as when we speak to a friend and receive a reply. The reply does not come from our idea, but is proof of the actual existence of the person addressed.

Perception is to be taken for what it is worth; we have in it probability approaching impossibility on the one hand, or certainty on the other; but universal absolute skepticism

can not be accepted by the human mind; for to accept it is to overthrow it, paradoxical as that may seem. If it is certain that nothing is certain, one thing, at least, is certain, that nothing is certain; if it is really uncertain whether any thing is certain or not, then it is certain that it is uncertain whether anything is certain or not. Reality of some kind there must be, even if all is illusion, for then illusion is the reality; it is, therefore, certain that there must be reality of some kind. Then one thing, at least, is certain.

It now remains for the human mind to ascertain what the reality is; and it must be admitted that great success has been attained, as in Geometry, Sextus Empiricus to the contrary notwithstanding. Neither the skepticism of Pyrrho, nor that of Sextus has shaken the faith of mankind in the truth of mathematical theorems; but more of this hereafter.

Reason in man harmonizes with the reason displayed in nature, but whether man conforms to the universal law of reason depends upon himself and here the determinism of physics is confronted with the indeterminism of Ethics. We can not tell whether an entire stranger is honest or dishonest; but knowing the character of a man, we can predict his conduct in certain circumstances. A thief will steal, if he has opportunity, and if he thinks he can probably escape detection; an honest man will respect the rights of his neighbor. We can, however, predict the consequences of conduct. Reason, not impulse, is the rightful guide, and wisdom, the union of theoretical knowledge, good will, and practical skill in executive conduct, is the crowning virtue. "Wisdom is the principal thing, therefore get wisdom."

Irrational action is often willed and deliberately entered upon from free choice. Sometimes action from habit or sudden impulse takes place without reflection or deliberate decision. It is, however, the business of education to break up bad habits, and confirm those that are good; and the ethical education of self is, to learn to act, when circumstances permit, from reflection instead of impulse. Sudden emergencies, however, may occur, when instantaneous, or impulsive action, alone is possible.

To carry out the doctrine of the unity of the soul, the Stoics taught the necessity of suppressing the chronic ail-

ments such as avarice and ambition, to avoid infirmities, to strengthen the weak powers, to correct erroneous opinions, and to cultivate the disposition to conform to nature, that is, to the light of reason.

The perfection of man, according to the Stoics, is the inner perfection of the soul. Make the soul right, and the life will be right. "Out of the heart are the issues of life." Pleasures need not be sought. Virtue is its own reward. Future rewards and punishments, according to the Stoics, are moral bugbears. Virtue or right reason, and firmness of will, or the combination of wisdom, courage, temperance and justice, is the only good for man, and vice, the opposite of these virtues, is the only evil. Other things are indifferent, though they may be classified according to a certain scale of values as health, wealth, social position and political preferment; yet if not attainable, the essential well-being of the soul is not disturbed.

The Stoics were social, among themselves, and were desirous of forming a cosmopolitan citizenship, embracing all the good in one brotherhood of minds, actuated by the principles of the Stoic philosophy, regardless of nationality or race. In reality, such a society is a church fellowship, with Zeno as the founder, or high priest. The Greek mythic divinities, the Stoics explained allegorically, as personifications of the powers of nature. Divination and oracles afforded the means of communication between God and man. When the objection was urged that if all things are foreordained, divination is superfluous, Chrysippus replied that divination and our conduct under it were also foreordained.

The middle Stoa was one of inaction, or at best of defensive action against the Skeptics, or a continuation of the discussion of psychological or cosmological problems, as the universal conflagration and renewal of all things in an ever recurring cycle.

Ordinary actions, according to nature, as eating and drinking, though not of themselves morally good, were yet the conditions of the good; for the end of the natural is the moral. The possessor of one virtue is the possessor of virtue in its completeness. A person morally lacking in one virtue is wanting in all; that is, he is morally unsound, and can not, in any respect, be depended upon. He that offends in one point is guilty of all.

Of the later, or Roman Stoa, Seneca undertook to vindicate the ways of God to man; he was the first writer on Theodicy. Musonius Rufus taught that virtue is the sole end, and that virtue may be gained, without theory, by habit and training, till the character is established. Epictetus taught that we should have no concern for things beyond our control, since we are not responsible for them, they would not affect our moral character; but for the things within our control, we should be careful, lest we go wrong. The Emperor Marcus Aurelius writes on the vanity of human life, and the duty of submission to the will of God.

A comparison of the Epicurean and Stoic philosophy shows their contrasts, and sets each in a clearer light. An Epicurean would say: Pain is the only evil and pleasure the only good, and that virtue consists in such a life as gives the minimum of pain and the maximum of pleasure. A Stoic would say: Pain is no moral evil and pleasure is no moral good; that the only good is virtue, a life according to nature, guided by reason.

A Stoic would say: Nothing can happen contrary to the will of a wise man; for a wise man's will assents to the will of God, and nothing can happen contrary to the will of God. An Epicurean would say: God cares nothing at all about the matter. The four schools, the Academy, the Lyceum, the Garden and the Porch, gave place to Eclecticism, Neo-Platonism and Skepticism.

CHAPTER X

Skepticism in Philosophy

Ancient philosophic skepticism divides into two branches—Pyrrhonic and Academic; that is, into the skepticism of that school of which Pyrrho was the head, and the skepticism of the second and third Academies, whose heads were Arcesilaus and Carneades.

The chief philosophers of the Pyrrhonian School were Pyrrho, Timon, Aenesidemus, Agrippa, and Sextus Empiricus.

1. *Pyrrho*. (circ. 360-270). Pyrrho of Elis had been instructed in the doctrines of the Eleatic and Megaric Schools when he, with Anaxarchus of the Atomic School of Democritus, accompanied Alexander in his career of conquest; and returning home, he opened a school of his own in Elis, his native city; but as he left no written works, his doctrines are known only through the writings of others, especially those of Timon, Aenesidemus and Sextus Empiricus.

Pyrrho criticized the dogmatic teaching of the other schools, and believing that nothing can be certainly known, he held that the proper course to take is to obey the laws, and to comply with the accepted customs of society and the rules of morality. He lived a long and peaceful life, highly respected by his fellow citizens.

Pyrrho had some ground for his skepticism. Thales had taught that water was the principle of the universe; Anaximander, indeterminate matter; Anaximenes, air; the Eleatics, being or permanence; Heraclitus, change or becoming, symbolized by fire; Pythagoras, number; Empedocles assumed for elements, earth, air, fire, water; Anaxagoras assumed *vous* or reason; the Sophists taught that man, each man for himself, is the measure of the universe, that each was the judge of his own good, and that man is a bundle of sensations; Socrates taught that man is the measure of the universe, but that reason is the characteristic of man; Plato

and Aristotle, in this agreed with Socrates, but differed somewhat from him in other respects; the Epicureans pursued pleasure; the Stoics followed duty.

Is it any wonder that Pyrrho was a skeptic in philosophy, and that he concluded that nothing could, with certainty, be known? Though these philosophers did not succeed in finding out the secret of nature, yet they all had a philosophic aim—to find the fundamental truth which would reduce the multiplicity of the universe to unity, or at least to harmony.

2. *Timon* (circ. 330-240). Timon of Phlius, a Sillograph, or Satirist, studied philosophy, first under Stilpo, the Megarian, then with Pyrrho. He was the author of numerous works in prose and poetry, and satirized all the philosophers except Xenophanes and Pyrrho.

He said that to live happily from actual knowledge, we ought to know three things—the nature of things, how we are related to them, and what we can gain from them; but as the nature of things is unknown to us, also our relations to things, our right attitude is that of indifference towards things, maintaining good temper, cultivating virtue, and so find happiness in tranquillity. Live according to nature and custom.

3. *Aenesidemus* of Cnossus, whose exact date is unknown, collected, about the beginning of the Christian era, the results of the teaching of Pyrrho and Timon, which together with his own speculations, he published in systematic form, as the ten tropes, or turns of thought, which led to *ἐποχή*, or suspension of judgment with respect to truth. He held that *ἀταραξία*, or tranquillity followed *ἐποχή*, as a shadow follows a body.

The Pyrrhonians did not deny sensations, or feelings, but with them every thing was phenomenal, and phenomena implied nothing with regard to their causes, which were wholly unknown. To attain to *ἐποχή*, or suspension of opinion, argument was placed in opposition to argument, phenomena to phenomena, argument to phenomena, and phenomena to argument, and the result was uncertainty, and hence followed the tranquillity of indifference.

The ten tropes of Aenesidemus, which led to suspension of judgment, were based on the following considerations: The variety of animals; the difference in men; the difference in

the constitution of the sense organs; circumstances; position, distance, place; mixtures; quantities and constitution of objects; relation; frequency or rarity of occurrence; systems, customs, laws, myths, dogmas.

Aenesidemus also gave eight tropes on Aetiology, or theory of causation, founded on the denial that phenomena reveal their causes. The fundamental objection to the reasoning from effects to their causes is that the method is hypothetical, and that more than one cause may be offered to account for the same phenomenon; also that causes, apart from their effects, do not manifest themselves to any of the senses. Though denying any knowledge of cause, he accepted the fact of change, as manifest to the senses, and thus favored the doctrine of Heraclitus.

4. *Agrippa* was later than Aenesidemus, though his exact date is not known. He is mentioned by Diogenes Laertius, though not by Sextus Empiricus, as the originator of five tropes. They show an advance in logical power of the skeptical school, and have the following bases: Discord; *regressus in infinitum*, Relation, hypotheses; *circulus in probando*.

5. *Sextus Empiricus* flourished about 200 A. D. He was a learned physician, a writer on the history of philosophy, and the head of the Pyrrhonian School, in his time, located probably in Rome. Sextus was an agnostic.

In his work entitled *Πυρρώνειοι ὑποτυπώσεις*, which may be translated Pyrrhonian expositions, Sextus sharply criticized the various dogmatic schools of philosophy, and held that the true attitude, the one of Pyrrhonism, of balancing arguments pro and con, was the only true one, since it led to *ἐποχή*, the suspension of judgment, neither affirming nor denying, and that this resulted in *ἀταραξία*, or repose of soul. Sextus also wrote a treatise entitled *adversus mathematicos*, against the mathematicians.

Sextus takes up the ten tropes and discusses them in order. We give the substance of what he says.

(1) On the differences of animals, as to origin, their senses, their preferences for different food, Sextus says substantially: Some animals are carnivorous, some herbivorous; the sense of sight is keen in the greyhound, the sense of smell in the bloodhound; cows eat cabbage, pigs do not. Some animals live on land, some in water, and birds fly in the air. Some animals

are gregarious, others solitary. Many animals, as the horse, seek the fresh grass for food; the vulture seeks carrion. Are things pleasant to one class of animals always pleasant to another? Does nature appear the same to all classes of animals. To which of them does it appear as it is? Have animals correct ideas of nature? Has man correct ideas of nature? It is true that our sensations are as we experience them; our ideas are as we are conscious of them; but do they reveal the truth? As we can not prove that our ideas correspond to the reality, the only proper attitude is suspension of judgment.

The reply to the above is that sense knowledge is relative, and the different animals, as well as man, have relative truth. Objects are to us as they appear; that is, objects are such as affect us in certain ways. Man, however, differs from animals in that he seeks for causes of phenomena, while animals probably do not.

Sextus raises the question: Have the so-called irrational animals reason? In discussing this question, Sextus selects the dog for comparison with man, and reaches the conclusion from numerous illustrations, that the dog is equal, if not superior, to man in the accuracy of his perceptions, and facetiously remarks: "It is for this reason, it appears to me, that some philosophers, (the Cynics) have honored themselves with the name of this animal." Sextus concludes the comparison of man and animals with the statement: "I shall be able to say how each object appears to me, but in regard to what it is by nature, I shall be obliged to suspend my judgment." It is by nature such as to affect me in a certain manner.

(2) In regard to the second trope founded upon the differences in men, Sextus says, substantially: There is no unanimity among men in regard to the characteristics of external objects. Men differ in body and mind, and delight in different things. The races of mankind have their peculiarities, and men of the same race differ in their preferences, in intellectual and moral endowments, in their philosophy in their religious beliefs. They place different values on the same things. What then is the truth concerning these things? A Platonist would say, agree with Plato; an Epicurean, agree with Epicurus; but Sextus says: Suspend judgment.

The answer to this trope is, men generally choose according to relative truth, what seems good to them. It is true, however, that things are not all of equal worth. Knowledge outweighs ignorance, wisdom folly; character, money. Those things are to be preferred that tend to the perfection of man as a physical, intellectual, and moral being, and satisfaction varies with perfection.

(3) In regard to the third trope that different senses give different reports concerning the same object, Sextus says: "To the different senses, an apple may appear smooth, fragrant, sweet, yellow. A painting appears to the eye with fields and trees, and buildings, and streams of water, with bridges, and cattle grazing in the fields, and a distant mountain range. To the touch, it is all one flat surface. Which is the lying sense? A person with a greater or less number of senses than we have, would have a different idea of the world. What then is the nature of the world? "The dogmatists are conceited enough to think that they should be preferred to other men in their judgment of things, we know that their claim is absurd, for they themselves form a part of the disagreement." Hence, suspension of judgment follows in regard to external objects.

In reply to this, it is evident that Sextus himself dogmatized, when he said, we *know* that the claim of the dogmatists is absurd. He should have said: The claim of the dogmatists appears to us absurd. Does even the modified statement escape dogmatism? But let this pass. The answer is, each sense reports the quality related to it, so that we can say the apple has qualities which affect the touch, smell, taste and sight in certain ways. These qualities do not conflict, and may all exist in the apple. The objective cause of the sensation may be occult, as in the taste of salt or sugar, and we can only surmise that the sensation is due to the size of the molecules, to their forms, to their motions, or to their chemical action on the organs of taste, yet we know positively that the peculiarity of the sensation is due to some cause in the object, since, the organ being the same, the taste of salt differs from that of sugar. Nature and man are so correlated that certain uniformities in results follow their interaction, and we are enabled to predict, and this is the mark of science.

(4) The fourth trope is based upon circumstances or conditions. In regard to this trope, Sextus says many useful things: The same sense reports differently in different persons, or in the same person in the different circumstances of health or sickness, youth or age, sleeping or waking, in hunger or satiety. Actions of others are reported according to our opinion of them. Our state of love or hatred, joy or sorrow, courage or fear, affect our opinions and our conduct. Our subjective states which modify our judgments, whether produced by physical or mental conditions, are continually changing. Disease such as jaundice or the mumps affects our relish for food. Children have their toys, and love them, as the hoop or cross-bow for boys, and dolls for girls. Men and women have their toys, and love them too, and in their pursuit of baubles, miss the true riches of a moral character and a righteous life. He who prefers one thing to another, does so by some criterion, test or proof; but the criterion itself needs a criterion, the test needs to be tested, the proof needs to be proved. Hence, again, the result, suspension of opinion.

All this should have due weight, and Sextus is entitled to thanks for such an ample exposé of the dangers which beset our opinions; but these liabilities to error apply only to sense knowledge or inferences from phenomena. A rational intuition, such as, Every event must have a cause, or a logical demonstration, as found in Geometry, is not effected. Moral truth is not affected, as: It is right to seek the highest good for all within our influence.

(5) As to the fifth trope based upon position, distance and place, Sextus says: The same ship appears small and motionless at a distance, but large and in motion when near, and the same tower appears round from a distance but square when we are near to it. The oar seems straight in the air, but bent, when thrust obliquely into the water. The color of the feathers on a dove's neck changes its shade as it walks by us. A portrait can be so painted that the eyes will follow us as we walk round the room. Here also we should suspend judgment as to the objective facts.

The true answer to this trope is, Observe caution, and correct your judgments; but the skeptic will reply, Is there not still liability to error? Yes, that is true; but the error

can be reduced, if not avoided altogether. The tower apparently round at a distance is found to be square. Will the skeptic say it is not square, or that it is not known to be square? Inferences from facts are liable to error. We hear a noise; the rational intuition that the noise has a cause is not error; but the inference, what the particular cause is may be wide of the mark. This leads us to observe that errors of perception arise from the judgment, or inference from the sensation. We are not mistaken as to the fact of sensation; we are not mistaken as to the necessity of a cause of the sensation, nor as to the necessity of a subject or ego that experiences the sensation; we may be mistaken as to the special cause of the sensation; we ideate or picture the object according to our judgment as to the cause; the idea or picture will be correct or incorrect, according as the judgment is true or false. Our ordinary perceptions, tested as they have so often been by experience, are in general correct, and can be relied on; but whatever be the errors in perception, rational knowledge is not affected. A wolf at a distance may be mistaken for a dog, but that does not affect the demonstrations of Geometry.

(6) As to the sixth trope based on mixtures, Sextus says, These mixtures are either outward, as in the air, or inward as in the organs. The air may be transparent or filled with fog, the eye is affected by jaundice, the taste by mumps. Hearing and smell are both affected by catarrh. The senses, in such cases, report falsely; hence trust them not; suspend judgment.

The proper thing to do, is to ascertain the presence of these mixtures, allow for them, and be on our guard against deception, and be cautious in entertaining opinions, but in all such cases, rational knowledge is not disturbed.

(7) The seventh trope is based on quantity and composition; and says Sextus, our perceptions are changed with the quantity and composition. A few grains of salt may be tasted with pleasure, but a spoonful put into the mouth is too much of a good thing. The seasoning put into food affects our relish for it, and we judge of it accordingly. The color of the liquid seen in a vase in a show window of a drug store looks dark when seen through the large part, but as the vase runs down to a slender stem, the liquid looks light, or like water slightly tinged. Food taken in different quanti-

ties produces different effects, as when the amount is due, or deficient, or superabundant. A certain combination of elements produces a useful medicine; a change in the ratio of the same elements may produce a poison. Our judgments of external objects are thus often unreliable; hence suspend judgment.

The answer is, try by experiment, judge from facts properly tested, be cautious, and act accordingly.

(8) The eighth trope is based on relation; but as Sextus says, every thing is related to something else, as a species to its genus, or as an individual to its species. Things are related as cause and effect, as the condition and the conditioned, as antecedent and consequent, as the premises to the conclusion, as the present generation to the past or future generations. The relationship of kindred affects the conduct of people toward each other. A woman gives to her own son, sugar, to her step-son, a cuff. A man thinks his own horses better than those of his neighbors. Political partisans find nothing but good in their own party, and nothing but corruption in the party of the opposition.

These are warnings that we ought to heed, thanks to Sextus. So keep a level head, be not biased by self-interest, prejudice, or affection, judge not wholly from appearances, but judge righteous judgment.

(9) The ninth trope relates to the frequency or rarity of events, to their regularity or irregularity. Sextus says, we are more astonished at a comet than at the sun, which is a much more magnificent object; the rise and fall of the tides, on account of their regularity, are regarded as a matter of course. A great flood, on account of its rarity, is not anticipated but when it occurs, is talked about for a month. A cyclone or an earthquake causes terror. To barbarians, an eclipse is a harbinger of a dire calamity; to an enlightened mind, it is a phenomenon of unusual interest. How are we to regard wars, and famines, and pestilences? Sextus says, suspend judgment, or have no opinion in regard to these things.

The right thing to do is to search for the truth, to make thorough investigations, and to decide according to the light of reason, or according to the greatest probability, when certainty is out of the question. Look not for infallibility in such cases.

(10) The tenth trope relates to Laws, opinions, belief, customs, which influence our judgments with regard to other nations, or classes of men. Sextus proceeds to invalidate any opinion with regard to these things by opposing law to law, custom to custom, belief to belief, opinion to opinion, or law to custom, belief to law, and so on. Some tribes tattoo their children to add to their beauty; we consider that the practice disfigures them. The Egyptians were allowed to marry their sisters; we forbid the practice. The standard of opinions and practice in one nation, party, church, or society, is opposed to those of another nation, party, church or society. The morals on one side of a range of mountains are opposed to those on the other side. One church permits its members to dance or play cards, another church forbids such practices. What is true and right is uncertain; hence, suspend judgment.

Suspend judgment till you can form a judgment that is at least probably true, and leave it open to correction; but be not hasty in forming an opinion or in modifying an opinion once formed.

The tenth trope tends to broaden our views and give us charity; but it does not show that all laws are equally beneficial, or that one custom may not be preferable to another. These things are tested, in the long run, by their consequences, and we can judge of them accordingly. We have now reached a period in the world's history when action and reaction are powerful, and the probability is that in the course of time, all nations and people will accept the best form of government, enact the most beneficial laws, adopt the most useful customs, and comply with the highest standards of morality.

The eight tropes of Aetiology formulated by Aenesidemus against the theory of causality are chronologically anterior to the five tropes of Agrippa, though Sextus reverses the order and treats the five tropes first, and then returns to the eight.

The five tropes of Agrippa are of a higher order than the ten of Aenesidemus, and show a logical advance in the skeptical school. The relation of the ten tropes to the five is that of the empirical to the rational; the ten are derived from objective relativity, the five from subjective logical principles.

The originality of Agrippa, in regard to the five tropes, relates to their formulation and use for skeptical purpose, and not in regard to their substance.

Of the five tropes based on *contradiction*, on the *regressus in infinitum*, on *relation*, on the *hypothetical*, on the *circulus in probando*; the first and third are in the list of the ten already discussed, then only the (2), (4) and (5) need be considered in the present discussion.

In regard to the *regressus in infinitum*, Sextus says: The proof brought forward for the thing set before us calls for another proof, and that for another and so on to infinity, so that not having anything from which to begin the reasoning, suspension of judgment follows.

The answer to this is that in tracing the reasoning in a regress order, we ultimately reach axioms, or self-evident propositions that need no proof. The consensus of opinion of the best minds of the world establishes the fact that demonstration is not only possible but actual, as in Geometry, and this overthrows the hypothesis that reasoning runs back in an infinite series, and establishes the fact of ultimate axiomistic bases for the reasoning, which are the starting points in the direct order.

(4) In regard to the fourth trope, based on the hypothetical, Sextus asserts that we can escape the *regressus in infinitum*, only by the hypothetical, but in this case, other hypotheses are possible, and we are thrown into a state of doubt, as to which hypothesis is the true one, and suspension of judgment follows.

In regard to this it may be said that though several hypotheses may be possible, they are not all equally tenable. In fact, hypotheses sometimes admit of verification or refutation. For example, Kepler made eighteen hypotheses in regard to the connection of the distances of the planets from the sun, with the time of their revolution, before he found the true one, admitting of verification, that the squares of the periodic times are proportional to the cubes of their mean distances from the sun. The other hypotheses were refuted by the facts.

Sextus held that to prove the hypothesis is to go back to the *regressus in infinitum*. The *regressus in infinitum* is a bug-bear, as we have already shown, Kepler verified his hypothesis, and did not go back to infinity either.

(5) The *circulus in probando*, or reasoning in a circle, Sextus correctly says, arises when the thing which ought to prove the thing sought for, needs to be sustained by the thing sought for, and as we are unable to take the one for the proof of the other, we suspend our judgment in regard to both.

Reasoning in a circle is a fallacy which ought to be avoided, and is avoided by all sound logicians. It is a favorite objection to the syllogism, and hence to all deductive reasoning, which always can be reduced to the syllogistic form.

Even so good a logician as John Stuart Mill maintained that the syllogism involves the fallacy of begging the question, that is, reasoning in a circle, that to know the major premise, we must first know the truth of the conclusion; but the fact is, the major premise can be established, without any reference to the conclusion.

Suppose I wish to know how many diagonals can be drawn in a chiliagon, or a polygon of a thousand sides, I first establish the formula, which is the major premise, giving the number of diagonals that can be drawn in a polygon of n sides.

From any one vertex, a diagonal can be drawn to all the vertices except three—the vertex itself and the two adjacent vertices, and since there are n vertices, I can draw, from any vertex, $n-3$ diagonals; hence from the n vertices I can draw $n(n-3)$ diagonals; but this by going round the polygon, counts each diagonal twice, that is, from the two ends; hence, the whole number of diagonals in a polygon of n sides is $\frac{1}{2} n (n-3)$, which is the major premise. In a chiliagon, $n=1000$; then $\frac{1}{2}n=500$, and $n-3=997$; . . . in a chiliagon, I can draw $500 \times 997 = 498,500$ diagonals. I did not have to know this number to know the major premise. Hence, also the syllogism reveals truth before unknown, without begging the question.

Sextus held that the five tropes includes all cases, whether of sense, or of the understanding, or of both. Protagoras and Epicurus say that only things of sense are true; Plato says that only things of thought, or ideas; Aristotle and the Stoics say that both are true, so that, in any case, discord arises, and the proof must rest on hypothesis, or run into the *regressus in infinitum*, or involve the *circulus in probando*. Hence, these five tropes lead to a suspension of judgment,

that is, to the uncertainty whether anything is proved or not. Now, if Sextus has proved that nothing can be proved, he has, at least, proved one thing—that *nothing can be proved*; if he has only proved the uncertainty of proof of anything, then he has proved that uncertainty.

Skepticism runs into dogmatism, and in spite of itself, eats itself up; but this dogmatism, Sextus failed to see. Give skepticism rope enough, and it will always commit suicide.

An attempt was made to reduce the tropes to two, due to Menodotus. Everything that is comprehended is comprehended either through itself or through something else. That nothing can be understood through itself is evident, Sextus says, through the disagreement of physicists in regard to it; it is evident, moreover, that a thing is not the cause of itself. It can not be understood through anything else; for that something else would need to be accounted for, and so on, which throws us into the *regressus in infinitum* or the *circulus in probando*.

These objections, we have already answered.

At this point of the discussion, Sextus returns to the eight tropes of Aetiology, formulated by Aenesidemus, and directed against the theory of causes. These tropes are based, as Photius says, on the fact that: There are no visible signs of the unknown, and those who believe in their existence delude themselves, and are the victims of a vain illusion.

Sextus states these eight tropes separately, and concludes by saying: Perhaps the five tropes of *εποχή* are sufficient to refute aetiology." He also says, "that one who accepts the theory of cause will be thrown into the *regressus in infinitum* or the *circulus in probando*."

The ablest skeptic of Modern times was Hume, who held that we have no warrant for inferring the relation of cause and effect, in the sense that the cause is efficient in producing the effect; hence the relation of cause and effect is resolvable into that of antecedence and consequence. Hume showed that, according to Locke's philosophy which he accepted, we can not have the idea of cause, as efficiency but we do have this idea; hence Locke's Philosophy is defective. If a cause is a mere antecedent, having no influence in producing the event, it might as well be absent; but when absent, the event does not take place; hence a cause has influence, or is efficient, and not a mere antecedent.

We get the idea of cause as energy or efficiency by experience, whenever we make an effort, as in raising a weight; we know that every event requires a cause by rational intuition; for an event has no existence before it occurs, and non-entity can not jump into existence.

II. The skepticism of the Academy, having its seed in Plato himself, arose under Arcesilaus, the leader of the Second or Middle Academy, and was further developed under Carneades, the leader of the third or New Academy.

1. *Arcesilaus* (316-241). Arcesilaus of Pitane in Aeolia, received careful training under Autolychus, the mathematician. He then studied under Theophrastus of the Peripatetic School, but was gained over to the Academy by Crantor for whom he had a strong friendship. He also studied with Polemo and with Crates whom he succeeded as leader of the Academy.

Arcesilaus changed the method of teaching from lectures to discussions, returning, as he claimed, to the Socratic method of conversation.

His doctrine was skeptical; he reached the conclusion that he could not know anything, not even his own ignorance; but this is dogmatic; for it amounts to saying that he knew that he could not know anything, not even his own ignorance; that is, he knew one thing, he knew that he could not know.

But to go back for a moment, Sextus says: the Academic formulae rest on a dogmatic basis, but the skeptical formulae do not, as they refute themselves, and are like cathartic medicines which carry themselves off with the humors they purge; but when Sextus says, he is uncertain with regard to everything, he includes this uncertainty, so that he is either certain of this uncertainty, which gives one certainty, or he is uncertain whether he is uncertain or not, which is a new uncertainty, and in like manner he is uncertain with regard to this new uncertainty, and so on, *ad infinitum*. Ah! Sextus, if you reject all certainty, you yourself are thrown into the *regressus in infinitum*, into which you were so fond of throwing the dogmatist, and you can escape it only by the *hypothetic*, or by the *circulus in probando*, both of which you have amply shown are fallacies of which the dogmatists are so often guilty.

2. *Carneades* (213-129.) Carneades of Cyrene studied first with the Stoic School, and is reported to have said: "If Chrysippus had not been, I had not been either." Finally he became the head of the Academy, and so carried out his principles, both negatively and positively, with such skill and power, that he is justly called the founder of the New Academy.

An interesting incident in his life occurred when he was sent on an embassy to Rome. He gave an eloquent oration eulogizing virtue, which greatly charmed the Roman youth; the next day he astonished them by refuting his arguments of the preceding day. No wonder that the wrath of the stern old Cato was so roused that he moved that the Greek philosophers be expelled from Rome, lest they corrupt the Roman youth.

The negative side of the philosophy of Carneades is a polemic against the Stoic theory of knowledge. He held that it is impossible to distinguish between the false and the true. There is no criterion of truth. The positive side of his doctrine resembles that of Arcesilaus. Knowledge being impossible, a wise man will suspend judgment; but the statement: knowledge is impossible is a dogma which can not be considered certain, unless it is itself axiomatic, or can be traced back till it is found to rest on an axiom from which it may be logically derived; for otherwise it will run into the *regressus in infinitum*, or the *circulus in probando*.

Carneades criticized the doctrines of Final cause and of Providence, by showing their inconsistency with the evil in the world, but this criticism reveals his ignorances and finally he called in question the existence of God, by pointing out the inconsistency of infinity with personality. He has not proved that infinity is inconsistent with personality. He taught that virtue consists in directing the activities towards the satisfaction of the natural impulses. In truth, virtue consists in directing the activities towards the lawful satisfaction of all our desires and to the good of others, giving the intellectual and moral powers their due supremacy and control. This dogma will stand fire.

CHAPTER XI

Eclecticism, Neo-Platonism, Gnosticism

A thorough-going skepticism is impossible to the human mind; it is contrary both to psychological laws and to the laws of language.

In saying that he affirmed nothing, Sextus affirmed that he affirmed nothing; he dogmatized in condemning dogmatism. In saying that everything is uncertain, Sextus included this statement itself; then it is uncertain that everything is uncertain, which is a new uncertainty; then this new uncertainty is uncertain, and so on, *ad infinitum*; hence, the *regressus in infinitum*, which Sextus used with such destructive effect against the dogmatists, becomes a boomerang against himself.

Another view can be taken: Sextus had no business to say: everything is uncertain, unless he held that it is certain that everything is uncertain; but as he said, this statement, that everything is uncertain, includes itself; then it is uncertain that everything is uncertain; hence the contradiction: It is certain that everything is uncertain; and it is uncertain that everything is uncertain. This contradiction justifies the statement of Aenesidemus, which Sextus condemns, that skepticism led to the philosophy of Heraclitus, that contrary predicates are applicable to the same object. It is true that diverse attributes may belong to the same object, as the same body may be both spherical and red, but contrary attributes can not belong at the same time to the same object, as a body can not, at the same instant, be both spherical and cubical.

In destroying dogmatism, skepticism, whether Pyrrhonian or Academic, destroys itself. The human mind cannot rest in negations; after criticism, comes reconstruction. The progressive order of human thought, as shown by the facts of history, seems to be: Construction, criticism, reconstruction, and the same repeated.

1. *Eclecticism.* The first step towards reconstruction is eclecticism. It was found that the various schools, notwithstanding their divergencies, had many points of agreement. The Academy, the Lyceum, the Porch and the Garden, all sought happiness; in this they agreed, though they did not agree in what happiness consists. Even Pyrrhonism had a theory of happiness, that it consisted in peace, quietude, content, or as they called it *ἀταραξία*, the absence of perturbation, and with them this was the only reasonable attitude, since knowledge was denied them. The Stoics found happiness in virtue; the Epicureans in pleasure; the Peripatetics in knowledge, together with favorable circumstances; the Academics in reason; the Pyrrhoneans in peace. All made happiness, in some form, the end of their efforts; and happiness, in some form, high or low, is the aim of every one.

This common agreement, to which great weight must be assigned, points unmistakably to the fact that happiness is the ultimate object of human pursuit; but this happiness is not necessarily sensational pleasure. As man is characteristically rational and moral, his happiness, his good, must be the satisfaction that springs from his rational and moral nature. Other agreements, such as the precept, follow nature, were found in all the schools of philosophy.

The successful attacks of Carneades on the distinctive doctrines of the schools, led philosophers to those common convictions about which men were generally agreed. Eclecticism, beginning with the Stoic School, found its way into the Academic and Peripatetic Schools. The Stoics allowed deviations from their doctrines. Panaetius was an admirer of both Plato and Aristotle, and Posidonius was not only an admirer of Plato but followed him in the psychology of the passions.

The Academy itself became the chief seat of Eclecticism, and the Academicians abandoned the teaching of Carneades, that things are absolutely unknowable, and admitted that it was a self-contradiction to prove that nothing can be proved. Where then is truth? Antiochus, the Academic, answers: "In those things about which all important philosophers are agreed." He maintained that the Academic, Peripatetic and Stoic systems differed in unimportant points rather than in essentials. Admitting with the Stoics that virtue is suffi-

cient for happiness, yet for the highest degree of happiness, bodily pleasures and external goods are also requisite, which is the doctrine of Aristotle.

The discovery and publication by Andronicus of the genuine works of Aristotle gave an impulse to the earnest study of his works; but the Peripatetic School yielded to the eclectic tendency of the times, though to a less degree than the Academic, and admitted foreign elements into the body of its teaching.

Cicero is good historical authority for the fact of the prevailing eclecticism. Though he opposed the Epicurean theory of morality, he admired the Stoic view, and practically adopted the Academic-Peripatetic doctrines.

In the early centuries of the Christian era, the various schools of philosophy continued their separate organizations, which were stimulated by the renewed activity in the study of the works of Plato and Aristotle, and maintained by the endowment of chairs of philosophy for the four principal schools at Athens, made by the Emperor Marcus Aurelius. There were also revivals of Pythagoreanism and Cynicism, called out and justified by the corruption of the times. Though maintaining their separate existence, the various schools, by interchange of thought, approximated towards mutual understanding, and the inculcation of common views, especially in regard to practical matters and ethical conduct.

The precursors of Neo-Platonism present several items of historic interest. Jewish religion and Greek philosophy have several important points of contact—the being of God, his relations to the world, the belief in revelation and prophecy, the doctrine of angels and demons. There is also a resemblance between the Essenes and the Pythagoreans, in their seclusion, mythical doctrines and purity of life.

The city of Alexandria was a suitable place for the intermingling of the streams of Jewish and Greek thought; and this was aided by the Septuagint translation into Greek of the Hebrew sacred scriptures.

Philo (30 B. C.-50 A. D.). Philo, of Alexandria, while holding Moses and the scriptures in the highest veneration, was also an admirer of the great Greek philosophers, Parmenides, Pythagoras, Empedocles, Plato, Zeno and Cleanthes. The truth held by these in common, he believed is found, in its purity, only in the Hebrew scriptures.

The idea of God is the point of departure in the philosophy of Philo. The problem was to find the relation of God, the high, the holy, the perfect, the infinite, the ineffable being, to the world of finite beings, and to the material universe, so infinitely inferior. Philo assumed intermediate beings, *δυνάμεις*, powers, described, on the one hand, as ideas or thoughts of God, and on the other, as beings, angels, or messengers of God, sent forth to do his will. To identify the ideas of God with personal beings was difficult, if not impossible; yet Philo made the attempt in his doctrine of the *Logos*, the embodiment of reason, the collective wisdom of God, the power comprising all powers, the viceroy of God, the highest of the angels, the image of the invisible God, by whom all things were created, and by whom all things consist. How nearly identical is the *Logos* of Philo with the *Logos* of the Apostle John, or with the Son of God of the Apostle Paul, may be seen by referring to the first chapters of John's gospel and to the Epistle to the Colossians.

Is the *Logos* of Philo, a personal being distinct from God, or an impersonal manifestation of divine power, wisdom and goodness? However this may be answered, Philo held that by the mediation of the *Logos*, God, who is infinitely above nature, formed the world out of the chaotic mixture.

Philo held to the doctrine of the fall of souls, the incorporeal life of purified souls after death, the transmigration of those needing purification, the kinship of the human spirit with the divine, the freedom of the will, the tendency to sin while the soul inhabits the body, and hence the need of extirpating the passions by the help of God, who alone works all good in us through our trust in Him.

We attain to the highest good when we pass the intermediate stages of consciousness into that of ecstasy, and receive the higher illumination into ourselves, and see God in his unity, and in the ineffable perfections of his being.

2. *Neo-Platonism*. The names distinguished in this school of philosophy are Ammonius, Plotinus, Porphyry, Jamblicus and Proclus.

1. *Ammonius* (—241). Ammonius was surnamed Saccas, because in early life he supported himself as a porter, in carrying sacks in the market place of the city of Alexandria. According to Porphyry, he was originally a Christian.

After long study, he opened a school of philosophy in Alexandria where he taught many years. Among his pupils were some who afterwards became distinguished, as Longinus, the rhetorician and philosophical critic, and Plotinus, the most celebrated of the Neo-Platonic philosophers.

Ammonius wrote nothing, keeping his doctrines secret, after the example of Pythagoras. As we learn from notes of Hierocles, preserved by Photius, his method was eclectic, combining the doctrines of Plato and Aristotle.

He claimed that a system of philosophy, higher than either that of Plato or of Aristotle, might be deduced from doctrines common to them, thus reconciling their views, and putting an end to the controversies between the Academic and Peripatetic Schools.

As Ammonius left no writings, his peculiar doctrines can be known only through the works of his successors, chiefly Plotinus and Proclus, and they added many new elements. The chief interest in Ammonius centers in the fact that he was the originator of the mystical doctrines of the Neo-Platonic School.

2. *Plotinus* (205-270). Plotinus, a native of Lycopolis in Egypt, having been directed to Ammonius, when in search of a teacher, said: "This is the man I was seeking."

He remained with Ammonius eleven years, and then he joined the army of the Emperor Gordianus in its march against Persia. When about forty years of age, Plotinus went to Rome, and opened a school of philosophy, in which he taught by conversation, rather than by lectures. By his disciples, and it is said also by the oracle of Apollo, he was called "good and gentle, and benignant, in a very high degree, and pleasant in his intercourse."

Neither the contentions of the schools, the criticisms of Pyrrhonism, nor Eclectic Syncretism satisfied the demands of the times. Another system seemed called for, another method was inevitable.

Plotinus began to write when about fifty years of age. He left fifty-four treatises, which were afterwards arranged by his disciple Porphyry in six *Enneads*, each consisting of nine books.

Neo-Platonism is dialectic, so far as it follows the method

of Plato; it is mystic in its methods of apprehending God; it is pantheistic in its results. It has two divisions, the theoretical and practical.

The theoretical part begins with God the transcendent One from whom came forth, by emanation, the *Noûs*, the *λόγοι* or inferior gods, and the universe. The soul is an emanation from the *Noûs*; hence its high origin; and in its fall, or lapse into sin, it is associated with the body, and is in a state of departure from God.

The practical part points out the way by which the soul may return to God, the eternal source of all blessedness. The steps are perception, reasoning, and mystical intuitions. Through perception, we see in the order and harmony of the world, an indication of its divine origin; reasoning brings us to the threshold of mystic intuition by which the soul in divine contemplation and ecstatic emotion, experiences the ineffable One with whom, for the time, its own identity seems to be lost.

Plotinus raises the questions: What is evil? Whence comes it? Is it positive, the doing of wrong, or is it negative, the failure to do right? Is it in matter or in the soul? Is there an archetypical evil? What is the real conflict of life? What is victory? What is final defeat?

Plotinus gives us his thoughts about these things, and an insight into his earnest struggles with evil, rather than dogmatic answers, and this is far more satisfactory. The fall of the soul is found in its subjection to the body, yet the tendency to fall is found, not in the body, but in the soul itself, perhaps in its desire for pleasure.

The order of the world is perfect, divine, eternal; and the great movements of nature, which are a terror to the ignorant, bring joy to the enlightened mind. Evil is discord, good is harmony.

Plotinus besought the Emperor Gallienus, with whom he was on terms of intimacy, to rebuild a city in Campania, a former resort of philosophers, to be called Platonopolis and to permit its citizens to be governed by the laws of Plato, but the plan was frustrated by the envy of the courtiers.

The labors of Ammonius and Plotinus carried Neo-Platonism through its first period.

3. *Porphyry* (233-303.) Porphyry, a native of Tyre,

studied philosophy for five years under Plotinus at Rome. He spent two years in Sicily where he wrote against Christianity. Returning to Rome he engaged in teaching; he also edited the works of Plotinus, and wrote several treatises of his own.

He was a fine writer, and had a great talent for literary research. He critically studied the Christian writings, and was a bitter opponent of the Christian religion.

The system of Porphyry was more popular, practical and religious than that of Plotinus, though his religion was a refined Polytheism.

The origin of evil and the guilt of sin are, according to Porphyry, not found in the body, but in the desires of the soul for pleasure. The aim of philosophy is the salvation of the soul; and to accomplish this salvation, not only philosophy, but the strictest morality is required.

He did not share in the gross popular views of Polytheism, yet he advocated the pure worship of the many gods, and made Neo-Platonism entirely subservient to Polytheism, which he defended against the vigorous assaults of the Christian Theologians. His writings are lost except the quotations from his works found in the books of Christian authors.

4. *Jamblichus* (—332.) Jamblichus, a native of Chalcis in Caele-Syria, studied under Porphyry. He opened a school in Chalcis, and drew a large number of disciples from various nations.

He wrote commentaries on Plato and Aristotle, and a treatise on Chaldean Theology, and another on Pythagorean philosophy, most of which are lost. Books on Egyptian mysteries, originating in his school, were ascribed to him, though there is doubt of its truth, on account of difference in style. He was much esteemed, and was often called the divine. The Emperor Julian esteemed him not inferior to Plato, and said he would give all the gold in Lydia for one epistle of Jamblichus.

The speculative character of Neo-Platonism was settled by Plotinus, but Jamblichus carried it out in more minute subdivisions, assimilating more Mystic and Oriental elements, giving it more of a Polytheistic and even magical character, till in his hands philosophy degenerated into superstitious theurgy.

At the head of his system, Plotinus placed God, the transcendent One, from whom emanated the *Noûs*, or intellect, the first begotten of God; from the *Noûs* emanated *ψυχή*, the soul, which, in turn, gave birth to *φύσις*, or nature; but immediately after the absolute One, Jamblichus placed a second super-existent unity, the producer of intellect, between the Absolute and the many, and made intellect, soul and nature, undergo various modifications, as intellectual, super-mundane and mundane gods, which were divided and subdivided in triads and hebdomads, till lost in the minute subdivisions, we marvel and repudiate the superstition.

Jamblichus never attained to that ecstatic communion with the Deity which Plotinus enjoyed four times, and Porphyry once. In recognizing God, the deepest truth, by mystic intuition, rather than by rational intuition, that is, by the intuition of the heart rather than that of the head, the Neo-Platonists made feeling a deeper element in human nature than reason, and more intimately related to self.

5. *Proclus* (410-485.) Proclus was born in Constantinople and died in Athens. What Chrysippus was to the Stoics, Proclus was to the Neo-Platonists. By his industry, learning and logical power, he brought the Neo-Platonic philosophy to its formal completeness and conclusion. From his knowledge of the history of the school, and by his great ability, he reduced the system to a cohering mass, supplying defects and reconciling contradictions.

With others of his school, he was a religious enthusiast, sharing in their faith, in their superstition, in their love for Orphic poems and Chaldean oracles. Seeking perfection led to high ethics; despising facts, to low science.

His system is constructed according to the laws of triadic development. The effect is like the cause; for since the cause goes into the effect, the thing produced is like that which produced it; and the thing produced is also unlike the thing which produced it, since the derived is different from the original, not identical with it.

As the effect is like the cause, it returns to it, that is imitates it on a lower scale, and produces something both like and unlike itself, and so on, in an endless series. A thing then exists in its cause, departs from it, and returns to it by imita-

tion by producing something else both like and unlike itself, and by the repetition of these three movements, everything is produced.

Between the Original One and the intelligible, Proclus interposes, with Jamblichus, an intermediary unity. Then we have *αὐτοτελείς* and the *ἐνάδες*, which are the highest Gods, and after them the *νοῦς*, the *ψυχή*, and the *φύσις*, that is reason, soul and nature. Proclus divides the province of the *νοῦς* into three spheres, *νοητόν* the intelligible, the intellectual-intelligible, and the *νοερόν* the intellectual; that is, into being, life, and thought. Of the three spheres, the first and second are divided into three triads, and each triad into seven hebdomads, which are the gods of the nations. The *ψυχή* or soul comprises three classes of souls, divine, demoniac and human, and these again are subdivided, according to the same law, and so on.

Plotinus supposed matter to be created by the soul, Proclus derives it from the unlimited, the *ἄπειρον* of Anaximander.

His system of Ethics requires the ascent through the five virtues to the supersensible, leading to the mystic union with the Divine, and this turns his ethics into theology, and morals into religion.

With Proclus Neo-Platonism was finished, and no further development seemed possible. The method throughout is deductive, beginning with the highest abstraction, and so descending, giving at every step, room for imagination, wild conjecture and superstition. Can the gods and demons of Mythology be verified by appealing to facts? Such a system, which can scarcely be understood by superior minds, was doomed to inevitable defeat in contending with Christianity which brought salvation to the masses.

The Emperor Justinian did well, when forty-four years after the death of Proclus, he ordered the Neo-Platonic School at Athens to be closed.

3. *Gnosticism*. The term Gnosticism, from *γνώσις*, knowledge, *γνωστικός*, one who knows, applies to the system of a philosophic school that claimed to know the truth by combining Oriental speculations with Greek philosophy and Christian doctrine.

The Gnostics were the originators of systematic investigations in Rational Theology and Comparative Religion,

and may, therefore, be called religious philosophers. Gnosticism is not strictly a heresy, as the Gnostics were outside of the church, yet it was Christian doctrine that gave it impulse and life.

The Gnostics were divided into many sects, or branches of a common system, to which the title Ophites, from ophis, a serpent, is appropriately applied, as the serpent was a common symbol with them all of a redeeming power. The evil characters of the Old Testament, with Cain at the head, were accounted true spiritual heroes, and Judas Iscariot of the New Testament is represented as alone knowing the truth and therefore betrayed the Savior that his good work of redemption might be completed. These extravagances, however, applied only to the earlier stages of the system in which evil was put for good.

Early in the second century, the Gnostics established three main centers at Antioch, at Alexandria, and at Pontus in Asia Minor. The school at Antioch was founded by Menander, who was supposed to be a disciple of Simon Magus.

The school at Alexandria was represented by Basilides and Valentinus, who were men of learning and ability. The school at Pontus was especially represented by Marcion, the son of a Christian bishop, by whom he was excommunicated.

The questions considered by the Gnostics were those which, in all ages, have awakened inquiry and baffled speculation—the beginning of life, the origin of evil, how a world so full of evil, could spring from an all-wise and holy being.

The essential corruption of matter is a fundamental principle of Gnosticism; hence all Gnostics agree in holding that this world did not spring immediately from the Supreme Being; hence they maintained that the world and God are separated by a vast gulf which they attempted to bridge in various ways, but chiefly by a series of emanations of spirits or æons from the Supreme Being, and to these Spirits they attributed the work of creation.

The Gnostic philosophy exerted a powerful influence on Christian thought, chiefly in compelling Christian thinkers to face the great problems common to Philosophy and Theology. It taught men like Irenæus, Clement and Origen to understand that the doctrines of Christianity could not safely be left to win their way by authority, but must be

vindicated by reason, at least must be shown not to be unreasonable. Gnostic philosophy thus stimulated the development of Christian Theology. Antioch and Alexandria, the chief seats of Gnosticism, became the first centers of Christian Theologic Schools. As the name Sophist, primarily signifying a wise man, gave way to that of philosopher, denoting a lover of wisdom, so the name Gnostic, signifying one who knows, has given way to that of Agnostic, meaning one who does not know, thus indicating that the attempt to solve the mystery of the universe, by speculation, has at least by these philosophers, been given up as hopeless. Truly the world by wisdom knows not God.

The Philosophy of Philo, the Jewish section of the Alexandrian School, Neo-Platonism and Gnosticism are related in the fact that they all are mystical. They differ in their affinities; the philosophy of Philo consisted of a Jewish nucleus with an envelope of oriental mysticism and Greek thought; the Neo-Platonic philosophy was more purely Greek, though tinged with Oriental mysticism; the Gnostic philosophy was a combination of mysticism with Christian doctrine.

CHAPTER XII

Patristic Philosophy

By *Patristic Philosophy* we are to understand the Christian Philosophy of the Church Fathers of the period between the times of the Apostles and the rise of Scholasticism.

By the attacks, especially of Neo-Platonism, the Christian Theologians were put on the defensive; they must justify theology in the light of reason, or show, at least, that it is not unreasonable.

As Gnosticism was somewhat hostile to the church, or at least an outside matter for which the church was not responsible, the Christian Theologians could not accept the Gnostic solution of theological problems, but must solve them from a Christian point of view, in harmony with the principles of reason.

If any principle can be accepted as fundamental, and held to be valid, because at once apprehended as true by rational intuition, it is the principle that *all truths exist in harmony*. No truth can conflict with another truth; and by this we mean that no truth can involve the falsity of another truth. If two truths conflict, that is, if the truth of each involves the falsity of the other, then we shall have both true by hypothesis, and both false, as the logical consequence of the truth of the other, then each would be both true and false at the same time, and taken in the same sense, which is self-destructive, absurd and therefore impossible.

No authority, however great, can compel reason to accept absurdities. Hence Philosophy has a right to demand that Theological doctrines be kept free from contradictions, which are, in fact, absurdities, since it is absurd to suppose that one truth can contradict another truth, though it does not object to mysteries, if supported by evidence, even if it does not accept them. It simply demands that the contradictory, the absurd, the irrational, be eliminated from the body of received doctrine; and in making this demand, philosophy does, for theology, a very great service, by removing the insuperable objections of rational minds.

Theology, as the theory of religion, is for the sake of religion, which is the thing most sacred and precious to the human heart. As the deepest necessity of man's nature, religion is in the world to stay; and it is the high calling of theology to harmonize it with the fundamental principles of reason, set forth and vindicated by the deepest philosophical thought, thus removing all discord between the affections and the reason of humanity.

There is no necessity for any one declaring, as did Jacobi: "With the head I am a heathen, but with the heart a christian." Religion should not be irrational and philosophy should not be irreverent. Philosophy is able to show that faith in God is not in conflict with any philosophical principle that reason affirms to be true.

Theology is, however, under no obligation to reconcile its doctrines with every new phase of Philosophy. This would be a needless task, if not endless; for, as it has been true in the past, and is likely to be true in the future, a system of philosophy may flourish for a time, then give way to another system. What system can be regarded as both true and complete? Is it that of Plato, or Aristotle, or Zeno, or Epicurus, or Pyrrho, or Philo, or Plotinus, or Valentinus, or Bacon, or Descartes, or Spinoza, or Leibnitz, or Locke, or Berkley, or Hume or Kant, or Reid, or Hamilton, or Fichte, or Hegel, or Schleiermacher, or Schopenhauer, or Hartmann, or Lotze, or Mill, or Spencer?

No doubt all these systems have more or less truth. A true Eclecticism, seizing on the central truth, as a fundamental, vital, organizing principle, might collect and arrange the various truths scattered through the different systems, and organize them into a symmetrical system, practically complete. Till this is done, so that the principles of philosophy are generally accepted, theology need not make haste to adjust itself to philosophy, nor endeavor so long as it keeps its doctrines free from absurdities, to harmonize them with the passing novelties of the successive systems of philosophy.

To require that faith should accept only what reason has demonstrated, is to demand that faith be no longer faith, but that it be transformed into knowledge. Faith, however, requires a basis of knowledge; but when the veracity of the

authority which claims our faith has been proved in all verifiable cases, it is unreasonable to withhold our assent, for instances not yet verified. But a doctrine is not to be accepted by faith simply because not self-contradictory; for many things not true are not self-contradictory, but because it has for its basis an authority that has given satisfactory proof of its veracity; that is, there must be positive and sufficient grounds for faith, in addition to the negative condition that the doctrine does not conflict with any known truth. The ground may be revelation, or nature, or history, or the instincts of the soul, or the testimony of reliable witnesses.

Has philosophy in the past shown by its history that it has exerted any influence on the doctrines of theology? We believe it has.

The early defenders of Christianity were styled *Apologists*, and their works *Apologies*. The aim of these writers was conciliatory, to remove misapprehensions from the minds of their opponents, and to place the doctrines of Christianity in a favorable light before the eye of reason.

1. *Justin* (103-167). Justin Martyr, so-called because he suffered martyrdom for his religion, was instructed in the philosophy of the Stoic and Platonic Schools. Impressed with the steadfastness of the Christians under persecution, and distrusting the reliability of human reason, he embraced Christianity and defended it against heretics, Jews and pagans.

His principal works are his two *Apologies* addressed to the Emperors Antoninus Pius and Marcus Aurelius, and his dialogue with Typho the Jew. Justin held that Christ was the Logos incarnate, in whom the entire human race has an interest, and that all who have lived in communion with him are Christians, as Heraclitus and Socrates. He believed that the early Greek philosophers, as Plato and Aristotle, were acquainted with the writings of Moses, but of this there is no evidence. The later Greek philosophers, as the Neo-Platonists, had access to the sacred writings.

The *Apologies* of Justin were written in defence of Christians who were denounced as atheists, rebels and evil-doers. Justin admitted that the Christians were Atheists, if it made them atheists, not to worship the heathen gods; but he maintained that they were no atheists, since they worship

the God of truth and righteousness. To acknowledge Christ as their spiritual King did not prevent them from being loyal to the Emperor, their temporal prince; he maintained that they were law-abiding citizens.

In his dialogue with Typho, Justin shows, from the Old Testament scriptures, that Jesus is the Christ, the promised Messiah. Though the norm of moral and religious life existed under the form of law, yet the ceremonial law was abolished in Christ, who substituted the moral law in its place.

In his writings Justin employs philosophy to enforce his views.

2. *Irenaeus* (160-202). Irenaeus, a pupil of Polycarp, the disciple of St. John, defends the Christian doctrines against the theories of the Gnostics. He also wrote against the antinomian doctrine, as tending to immorality. He held that God is identical with the Creator of the world; that the Logos or Son, and the Holy Spirit are one with the Father; that the Mosaic law was a preparation for the Gospel; and that the moral law applies to the intentions as well as to works, or outward conduct. Men freely decide for or against the Divine law, and for their decision and life are rewarded or punished in the future life.

Among the Apologists of Christianity, in the second century, perhaps a little earlier than Irenaeus, may be mentioned Tatianus, the Assyrian, Theophilus of Antioch, and Athenagoras of Athens. Tatianus over-estimated the value of Oriental ideas, despised Hellenic culture, and tended toward ascetic practices. Theophilus discussed the subjective conditions of faith, and the dependence of religious experience on purity of heart, Athenagoras combines Christian thought with Attic elegance of expression. We see in these three writers the eddies in the current of Christian thought.

3. *Tertullian* (160-220). Tertullian, a presbyter of Carthage, was opposed to Gnosticism, and in fact, to all speculation. He considered philosophy the mother of heresies, and went so far in opposition to it as to say: *Credo quia absurdum*. He stands for the reaction against philosophy; but an absurdity is no ground for faith; it cannot be accepted by reason.

4. *Clement* (—217). Clement of Alexandria, a presbyter, a man of great learning, and especially well acquainted

with Greek literature and philosophy, did not hesitate to draw, from all sources, arguments and illustrations of Christian doctrine. The Greek philosophy was accounted by him a preparation for Christianity. Christ, the Divine Logos, was the manifestation of the ineffable Father. Faith is based on knowledge; but as knowledge is imperfect, faith, when well founded, may go beyond knowledge, and in simple obedience, may do many things without knowing the reason why, only that God commands them. Faith leads from fear, the chief motive under the old dispensation, to love, the attractive power in the new. A Christian must needs renounce evil, and advance towards perfection, and this upward movement is to continue, not only in this world, but in that which is to come.

5. *Origen* (185-254). Origen, a pupil of Clement, and probably also of Ammonias Saccas, the founder of the Neo-Platonic School, is chiefly distinguished by his method of interpreting Scripture, and by his answer to Celsus, an able and bitter opponent of Christianity.

In addition to the historical and moral interpretation of Scripture, Origen resorted to the speculative or allegorical interpretation; but this led to fanciful conjectures, or to any meaning the imagination might invent. His work against Celsus displays great learning and ability. In fact the nature of the criticisms of Celsus are now known only through the works of Origen. He regards the genesis of the Son as eternal, and the Holy Spirit as raised far above all creatures. He teaches the existence of many other worlds previous to the present; but this view logically leads to an infinity of worlds before the present; for granting one world before the present, which must have come to an end to make way for the present, there would be needed for the same reason, whatever that might be, another world before that, and so on, *ad infinitum*. This may do as a speculation, like the pre-existence of the soul, but we have no knowledge of its truth.

6. *Arius* (—330). Arius, a presbyter of the Church of Alexandria, is noted for his doctrine of the relation of the Father and Son, and for his controversies with his bishop, Alexander, and with Athanasius, the Theologian.

His views can be best understood from two of his letters, one addressed to Eusebius, the church historian, and the other to Bishop Alexander.

He writes to Eusebius: "What do we maintain? That the Son is not unoriginate, nor a part of the Unoriginate, nor made of any previously existing substance, but that by the will and purpose of God. He was in being with the perfect God before time, the only begotten; that before this generation, he was not."

In a letter to Alexander, Arius says: "We believe in one God alone without birth, alone everlasting, alone unoriginate . . . We believe that this God gave birth to the only begotten Son, before eternal periods, through whom he made these periods, and all things else . . . so that while there are three persons, yet God is alone the cause of all things, and unoriginate. The son is originate, begotten by the Father. God is before all things, as single and the principle of all, and therefore before Christ also."

The doctrines of Arius have had various fortunes, and at one time they were considered orthodox by the eastern church, though never accepted by the western. At the present day, they are the central principles of the Unitarian creed.

7. *Eusebius* (265-340). Eusebius, a friend of Constantine, and a writer of Ecclesiastic History, befriended Arius in his controversies with Alexander and Athanasius. He was neither an Arian nor an Athanasian, but occupied an intermediate position in the Arian controversy. He did not hold with Arius, that there was a time when the Son was not, neither did he say that he was co-eternal with the Father. The relation of the Father to the Son he likened to that of a flower to its perfume.

8. *Athanasius* (298-373). Athanasius became Bishop of Alexandria when thirty years of age. He was five times sent into exile, and altogether, was separated twenty years from his diocese. He labored with zeal and success both as a Bishop and as an author. He formulated the Trinitarian creed.

In opposition to Arius, Athanasius formulated the doctrine of the Trinity which has been practically accepted by the various branches of orthodox Christianity. The doctrine of the Trinity, as a part of the Nicene creed, was formally adopted by the Council of Nice, A. D. 325.

Athanasius refuted the doctrine that an intermediate must be assumed between the eternal God and temporal

things, by the following argument: "If this intermediate were temporal, another intermediate being would be needed between him and God; if eternal, another between him and finite things, and so on."

9. *Hilarius* (—-368). Hilarius, Bishop of Poitiers, sometimes called *Malleus Arianorum*, and the Athanasius of the west, defended, by means of speculative philosophy, the doctrine of the Trinity against that of the Arians. He was banished to Phrygia by the Emperor Constantius, but was restored to his diocese after four years of exile. In his discussions he used the Latin language instead of the more flexible Greek.

10. *Pelagius*, supposed to be of British birth, came to Rome about 400 A. D. He was struck with the low tone of morals prevalent in the Church, the members seeming to rely on a profession of Christianity and the efficacy of the sacraments.

As his remonstrances were met by the plea of human weakness, he replied: "If I ought, I can." Obligation implies the power to meet that obligation. He stoutly maintained the freedom of the will, and the possibility of living without sin. His doctrines, though meeting with some encouragement, were finally condemned as heretical.

11. *Jerome* (341-420). St. Jerome, a man of great learning, made a critical revision of the old Latin translation of the Scriptures. This translation is known as the *Latin Vulgate*. Jerome, however, was not noted for his speculative ability.

12. *Ambrose* (340-397). St. Ambrose, Bishop of Milan, a princely ecclesiastical statesman, endeavored to advance religious life and worship in congregations. To this end he composed hymns and prepared a ritual for the clergy. To him directly Augustine owes his conversion.

13. *Augustine* (354-440). Augustine, Bishop of Hippo, had a heathen father and a Christian mother. He was brought up in the Christian faith, but became skeptical and dissolute. He was won back to the Christian faith, chiefly through the influence of Ambrose. He was well educated, and had prepared himself as a teacher of rhetoric; but after his conversion, he devoted himself to the interests of the church, and became her ablest theologian and defender.

Augustine was a philosopher as well as a theologian, and anticipated certain so-called modern discoveries in psychology. He took, as the immovable foundation of all knowledge, the fact of the consciousness of thoughts, feelings, and volitions, then consciousness is real, and thoughts, feelings, and volitions are real. To be conscious of sensation or of any other mental fact, is proof of the existence, not only of that fact, but of the one who is conscious. This reminds us of Descartes' *Cogito, ergo sum*. The fact of our existence is involved in the fact of the consciousness of phenomena, and can be known in no other way. Reality, therefore, is, and truth is, since we know reality, and God is who is truth itself. Thorough-going skepticism, as that of Pyrrho, is thus refuted.

Augustine combatted the Manichæan heresy, a system of doctrine which explained the mysteries of the world by means of two original principles, the one good and the other evil, ever in conflict. He was the better prepared to do this, because, at one time, he had been enthralled by this doctrine, and understood it perfectly.

Accepting the doctrine of total depravity, confirmed, as he believed by his own experience in his vain attempts to reform, Augustine inferred the inability of man to save himself from sin, and concluded that salvation is solely by the grace of God. Since only a part of the human race are saved, God elects those who are saved to eternal life, and consequently the rest are reprobated; but Augustine dwells lightly on this feature, though it logically follows, since they cannot by any possibility save themselves. As salvation is solely by the sovereign grace of God, and as he is able to save whom he will, it would seem that benevolence requires that God should save all. This would glorify him in the light of reason.

If it is said that the reprobate are sinners and deserve their fate, it may be replied that the elect are also sinners, and why should they be saved in preference to the others? The answer would be God is sovereign and can do as he pleases, and does no injustice. Let us see. The reprobate are totally depraved, according to Augustine, and cannot do right, and are, therefore, not responsible for doing wrong. To punish them for what is unavoidable is certainly not justice; and will not the judge of all the earth do right?

Ah, it is replied, they sinned in Adam. They had no conscious existence in Adam; hence their sin in Adam is a fiction, though it may be admitted that they inherited from Adam a tendency to sin.

The question will be asked, shall we then go back to Pelagianism? Not altogether. The natural man is assisted by the grace of God, which should not be left out, in this discussion. "The grace of God which bringeth salvation hath appeared to all men," and with this grace, that is, by God's help, any one can be saved; and if any one is lost, it is because he would not come unto God that he might have life. But, says one, is not the will determined by motives? No; motives are not causes, but reasons, and the will or volition, is determined by the ego itself, in view of reasons. The determining power is within and not without; it is the man himself. The will, as volition, is produced, is an effect, and not free; it is the ego that is free; the freedom is not in the effect, but in the cause, that is in the person. Conscience testifies to the same thing. The sinner has a sense of guilt and condemnation, which he could not have, if he believed that he acted under necessity; hence he does not believe that he acted under necessity, but that he acted freely, and therefore conscience condemns him. Conscience is no anomaly in human nature; it does not bear false witness, telling the man that he is guilty, when he is not guilty; it is the honest truthful witness, bearing testimony of guilt, which could not be guilt unless the man is free. The sinner's deepest convictions condemn him as guilty.

Augustine rejects the theory of a succession of worlds, which have been created and destroyed; he held that the present universe is the only one, and that it had a beginning, and that with the universe time began. With Plato he held that time does not exist apart from movement, and that it measures motion, reversing the true relation that motion measures time. Duration is eternal, and movement is in duration.

What was before time? Augustine answers: "Eternity and God;" and since there was no movement in eternity or in God before the act of creation, there was no time. In reply, we ask: Was God asleep in eternity? Do the changes that take place constitute time? If so, what changes? The sum

total of the changes, or some particular change? It cannot be some particular change; for if that particular change did not take place, other changes might occur, but these changes require time, and time would still be. Strike out change after change, till but one change is left, still there would be time. Does that change constitute time? No, for it might have been struck out before some other change, and still there would be time. What then is time? It is the blank possibility of events, or that in which things might persist or succession take place. Eternity is infinite time.

Augustine held that there was no time before the act of creation. Did God come into existence with the act of creation? No; for non-entity cannot spring into existence. God then is eternal; he was neither dead nor asleep before the creation of the world. The Logos, the Word, the Reason, the Wisdom of God existed with God before the foundation of the world. God was not idle nor asleep.

Augustine held that space has no existence apart from bodies and their relation; but space is the room for bodies, the blank possibility of bodies and motion; it is that in which bodies may exist or motion take place. Space is eternal, and the present time omnipresent; but they have no power, and are not rivals of God. But does not time work change? No; that language is poetic, not philosophic. Forces work changes in time. Philosophers may learn of mathematicians in regard to space and time. The most important of the works of Augustine is: *On the Trinity*, in which he regards the Son as the Word, the Reason, the Wisdom of God.

CHAPTER XIII

Scholastic Philosophy—First Period

Scholasticism is the system elaborated by the theologians of the middle ages.

Seven liberal arts and sciences—the *trivium* and the *quadrivium* were taught. The trivium embraced Grammar, Rhetoric, and Logic; the quadrivium, Arithmetic, Geometry, Astronomy and Music.

What is the relation of philosophy to theology? The only possible answers to this question are the following:

- (1) They are *co-extensive*, like two equal coincident circles.
- (2) They are mutually exclusive having no common subject-matter.
- (3) Philosophy is subordinate to theology.
- (4) Theology is subordinate to Philosophy.
- (5) Philosophy intersects theology.

The (5) is the true relation; for they have common matter, and each matter peculiar to itself. Both agreement and difference relate to their subject-matter.

Have Philosophy and Theology any common subject-matter? Yes; for both consider the fundamental problems relating to the origin of nature, the destiny of the universe and of man, and their dependence on God, the ultimate reality, represented by the common part of the circles.

Theology is the theory of religion, or the philosophy of the relations of man to God. Its doctrines concerning sin, repentance, pardon, regeneration, justification, and final salvation, are peculiar to itself, and are not held in common with philosophy. Scholasticism made *Philosophia Ancilla Theologiae*.

Philosophy is the theory of fundamental truth, which, if relating to God, may be represented by the common part of two intersecting circles; if relating to the necessary truth of the sciences, by the part of the circle Philosophy without the circle Theology.

Hence, the relation of intersection, which excludes the others, is the true relation of Philosophy to Theology.

Though philosophy is willing to aid the church in the development of her theology, yet philosophy is not *ancilla ecclesiae* the hand-maid of the church, since it deals with necessary truth, not only that relating to theology, but that not so related. When theology strives to show that certain doctrines are rational, or at least not irrational, she calls for the aid of philosophy, which is cheerfully rendered; but Theology accepts certain dogmas by faith, which philosophy investigates by reason; their methods are different.

Let us now consider the work of the scholastic theologians:

1. *Erigena* (cir. 805-877). Johannes Scotus Erigena, probably a native of Ireland, was a fine scholar, familiar with the writings of Aristotle, the Neo-Platonists, and the early church fathers. He was invited to France by Charles, the Bald, and placed at the head of the court school.

Erigena is the transition to scholastic philosophy rather than its accepted exponent. He was perhaps more of a Neo-Platonist than a scholastic. With him reason was the supreme arbiter, and not the authority of Plato, or of Aristotle or of the Scriptures or of the church; but he held that reason by its own insight, evolves a system in harmony with revelation.

Erigena considered the eucharist symbolical and commemorative. He defended the doctrine of the freedom of the will against the extreme predestinationism of Gottschalk.

In his treatise on Divine predestination, Erigena argues entirely from the speculative point of view. He asserts that true religion and true philosophy are fundamentally the same. They are, however, not the same, as true religion is *practical*—a life of faith in God, reverence for his character, and obedience to his laws; philosophy, on the other hand, is *speculative* and takes reason for its instrument and its authority. If Scotus had said that theology and philosophy occupy the same ground, it would have been nearer the truth, yet not exactly the truth; for we have showed above that they hold in part common ground, and each ground not held by the other.

At the request of the King, Erigena translated Dionysius, the Areopagite, and published it without submitting it to the church for approval, for which he incurred the displeasure of Pope Nicholas I.

The great work of Erigena, entitled *De Divisione Naturae*, is a reasoned out dialogue after the manner of Plato. Nature, the universe, containing both being and non-being, consists of four divisions: (1) That which creates but is not created. (2) That which is created and creates. (3) That which is created but does not create. (4) That which neither is created nor creates.

The first is God the origin of all things; the last is God the goal of all things. The second and third constitute the universe, the manifestation of God in time. God alone, the uncreated Creator, has true being, and is a trinity, the Father as Being, the Son as Wisdom, the Spirit as Life. Wisdom the first emanation the Son of the Father, corresponds to the Platonic realm of ideas. Goodness, the highest idea, participates in being. Essence participates in goodness, and hence in being, and life is a species of essence, and wisdom a species of life. God is, therefore, the trinity, *Being, Wisdom, Life*. Man created in the image of God is also a trinity, *Will, Intellect, Sensibility*.

As God was never without Wisdom, or eternal ideas moving under the influence of the living Spirit, so God has eternally manifested his creative power, and creation is, therefore, eternal. This seems to conflict with the (4) that which neither is created nor creates, and rules it out as actual, and leaves it only as a possible conception; for if all things return to God, who, though uncreated, does no longer create, his Wisdom and Life, having no sphere of activity, would virtually cease to be, and we should have left simply being without Wisdom or life; that is, God would become non-being. As God is eternal, so the universe, the manifestation of Being, Wisdom, and Life, or of the triune God, is also eternal; it never had a beginning, and it will never have an end; therefore, time is eternal, and is identical with eternity. Movement never ceases; for creation never began, nor will it ever end.

Sin results from the will of the individual who falsely represents evil as good and pursues it; wickedness is hell, which is not a local place, but is simply in the soul of the sinner. The result of punishment is the final purification and salvation of the sinner; even the devils are to be purified and saved.

Erigena is a remarkably interesting philosopher; he was not held by theological shackles. With him reason was ultimate authority, and philosophy superior to theology. He did not accept the dogmas of the church as ultimate and complete, and then endeavor only to elucidate them by logical exposition and defend them by argument, but he philosophized to discover the truth by his own reason, and thorough original investigation, and the result was a system of *rational Theology*, which is philosophically better than *dogmatic Theology*.

(2.) *Roscellinus*, who flourished the latter half of the eleventh century, was the first to give definite expression to the doctrines of Nominalism in opposition to those of Realism. Conceptualism, a later theory, was devised as a compromise between the two older theories. It is important to have a clear view of these theories.

Realism is the doctrine that the universal, a genus or a species, has a real objective existence, independent both of the individual objects of a class, and of the act of conception; and that it is the perfect pattern according to which the individuals are fashioned, and in comparison with which they must forever remain imperfect and inferior. This is the doctrine of *ideas* as taught by Plato. The formula for realism is: *Universalia ante rem*. Universals, however, may be regarded as God's ideas, and not as absolutely independent.

Nominalism is the doctrine that only individuals have a real existence; that all our ideas are particular; and that universals are only *names* of resembling individuals. The formula for nominalism is: *Universalia post rem*.

Conceptualism is the theory that a universal has an existence in the mind of the thinking subject, as a pure concept embracing those elements only which correspond to the qualities found in all the individuals of the class; that it is found by comparing resembling individuals, disregarding their peculiarities, noting, abstracting and combining their common qualities; and that, in passing from individual to individual of the same class, the peculiarities of the individuals are dropped, while the common qualities are retained, the notion corresponding to these common qualities constitutes the concept.

The formula for conceptualism is: *Universalia in re*.

The following considerations will throw light on these theories:

The individual is perceived; the universal is conceived. The universal is not an independent substantial existence but is simply what Aristotle calls a formal cause, or that combination of qualities found in every individual of a class, and which entitles it to be ranked as a member of that class; it cannot be cognized by the senses, nor represented by the imagination purely as a picture; but it is understood by the intellect as belonging to each individual of the class, and corresponds to the mental product called a concept. Individual peculiarities are real, and distinguish one individual from another.

Individuals are real, and so are peculiarities; classes are real, and so are common qualities; but neither peculiarities nor common qualities exist apart from the individuals, yet they can be understood as abstracts, though not imagined.

Individuals can be represented by the imagination, so can classes as collections of individuals; but neither common qualities alone, nor peculiar qualities alone can be imagined, but only together with their objects, yet as abstracts they can be understood.

The name is not the only universal, and extreme nominalism is not true, for the common qualities are universal. The universal, as a combination of the common qualities of a class, has no substantial existence out of the individuals of the class, and extreme realism is false. The concept has mental existence as the counterpart of the universal; it is real to thought, though not an image constructed by this imagination. It is only when the universal and the particulae are combined that an object can be represented by the imagination so as to be understood. By the universal we form the class; by the particular we identify the individuals.

To return to Roscellinus: he applied the nominalistic doctrine, that there is nothing real but individuals, to the Trinity, and denied that the Father, Son, and Holy Spirit constituted one God, in which case, said he, the Father and the Holy Spirit must have been incarnate with the Son; but, did usage permit, we ought to speak of *three* Gods. This statement, of course, gave great offence to the orthodox party.

3. *Anselm* (1033-1108). Anselm, the Archbishop of Canterbury, so far from endorsing the tritheistic theory, as Roscellinus supposed, composed his treatise, *De Fide Trinitatis*, in refutation. He accepted the sacred dogmas, as they were given by the authority of the church, and by philosophy endeavored to make them appear reasonable, and this is the keynote of Scholasticism. His motto was: *Credo ut intelligam*. He endeavored to give philosophic demonstration, not only of the existence of God, but also of the trinity and the incarnation.

His demonstration of the existence of God was both *a posteriori* and *a priori*. The *a posteriori* proof is found in the *Monologium*. From truth in knowing and in willing, and in things, he rises to God, the absolute truth, the ultimate principle of things and thought. The *a priori* proof, found in the *proslogium*, is ontological. God is the greatest being conceivable. Now if God has no objective existence, but is only a conception of the human mind, he would not be absolutely the greatest, for real objective existence would render him greater; hence God, the greatest being has objective existence. Descartes' demonstration of the existence of God the most perfect being is similar; *but conception does not involve objective existence*.

From the existence of God, the greatest being, Anselm proceeds to adduce the rational grounds for the Christian doctrines of Creation and the Trinity.

In his great work: *Cur Deus homo*, he undertakes to demonstrate the necessity of the atonement. Sin, the transgression of God's law, wounds the infinite honor of God, and requires infinite satisfaction, which man, a finite being, cannot render. Assuming the form of man, the sinless son, as God-Man, rendered this satisfaction, by paying the penalty, so that mercy can be extended to man, while the law is vindicated. The wages of sin is death. The death of Christ showed the claims of justice, though it did not satisfy them. The contest between goodness and justice is thus settled in a legal rather than in an ethical way. With it should be considered the free will of man, his duty of repentance and life of obedience.

4 *William of Champeaux* (1070-1121). William held in succession two different opinions in regard to realism. From

his first or extreme opinion, he was dislodged by Abelard, his former pupil. The extreme opinion was to this effect: All the individuals of the same class were essentially the same, differing only in accidents; or more definitely he taught that the substance of a class existed, in its entirety, in each individual of that class. The criticism of Abelard forced him to modify this position: If the essence *homo* is wholly and essentially present in Socrates, that is, wholly absorbed in Socrates, it cannot be where Socrates is not, and hence is not in Plato.

In his modification of his realism, William retracted the view that the universal is numerically the same, that is, identical, in all the individuals of the class, and asserted its essential sameness, that is, its similarity. To this view there is no reasonable objection, since there is something similar in all the individuals of the class, otherwise there would be nothing which would entitle them to be classed together. William held that the humanity of Peter is similar to that in Paul, yet not identical; but the Divinity in the Father, Son and Holy Spirit is one and identical. They are distinguished by their manifestations.

This combination of common or similar qualities is the characteristic of the class, and the notion of this combination of qualities is the concept of the class, and has only a mental existence, not in the imagination, but in the understanding of the subject who thinks of the class. The characteristic of a species is that which distinguishes the species from other species of a genus, and is used in the definition of the species. When we say Plato is a man, we mean that Plato is an individual of the class man, having the combination of attributes similar to that found in every man; he also has individual attributes peculiar to himself which distinguish him from other men, as from Aristotle, who also has his peculiarities.

The theory of *indifference* naturally followed the modification of that of William's; it may be thus stated: The universal consists of the attributes in any individual of the class similar to those in the other individuals of the same class, the individuals alone having a substantial existence. Restricting attention to these similar attributes, throwing the elements peculiar to the individual out of account, the individual becomes the genus or the species. This became a favorite

theory of the Realistic camp, after the criticism of Abelard; but this gives up the substantial existence of the universal, which is the core of Realism, and reduces it to a bundle of similar attributes in all the individuals of the class. This is a correct view except in this: This bundle of attributes is not the genus or the species, though it was so regarded, but is the characteristic of the class, and its mental counterpart is the concept. The genus or species is the class itself, which is a better view.

5. *Gilbert de la Porrée* (1075-1154). Gilbert distinguishes between the manner of existence of individuals and of genera or species. By genera or species, he did not mean the class but the combination of attributes, essentially though not numerically, the same in all of the individuals of the class. The universal is thus a native form, essentially the same, inherent in every individual of a class. The particular is what is peculiar to the individual and distinguishes him from the other individuals and gives him his special value. The individual is the universal plus the particular.

Gilbert held that universals exist in God as the perfect archetypes or patterns after which they exist as more or less imperfect copies, in the individuals of a class. Gilbert was thus at once both a Platonist and Aristotelian.

The categories of Aristotle were divided by Gilbert into two classes—*formae inhaerentes*, as substance, quantity, quality, and potential relation, and *formae assistantes*, as action, passion, place, time, position, belonging to objects only in relation to other objects. This distinction was adopted by all the schools, and held its place about four hundred years.

6. *Abelard* (1079-1142). We have seen how Abelard refuted extreme realism, but he did not go over to extreme nominalism. Laying down the principle: *Res de re non predicatur*, he inferred that *genera* and *species*, which are admitted to be predicated, cannot be things or substances. He also saw, that by separating the universal substance from the form which makes it individual, renders it indifferent to these forms, and identifies all beings in one universal substance. The theory of *indifference*, which recognizes a generic substance as the core of the individual, is condemned by the view that only the individual exists by its own right. The universal, however, is not a substantial core of the individual;

it is that combination of qualities similar in one individual of a class to that found in any other individual of the same class. The notion of this combination of qualities is the *concept*.

What then are genera and species? They are classes, not universals. When we say Plato is a man, we do not mean Plato is man, or Plato is humanity, though we can say Plato is human. When we say Plato is a man, we mean that Plato is a certain individual of the class man. The subject and predicate are identical; for a certain man is Plato. Saying Plato is a man, puts him in the class man without fully identifying him or discriminating him from other individuals of the class. Here we predicate Plato of himself, since a certain one of the class man is Plato; but the proposition Plato is a man means more than Plato is Plato; it also classifies him as a man.

In the definition, Plato is the man who founded the Academic School of Philosophy, we have not only classed Plato, but identified him and distinguished him from other individuals of the class man. It is the particular in Plato that identifies him and gives him importance.

The subject and predicate are identical, not in form, but in fact, only what is implicit in the subject is explicit in the predicate. The peculiar qualities not only define the man but give him his value.

Abelard employed reason in testing dogma. He said: "A doctrine is believed not because God has said it, but because we are convinced by reason that it is so."

Though he combatted the Tritheism of Roscellinus, his own doctrine of the Trinity was condemned by the councils at Soissons and at Sens.

Abelard is regarded as the originator of the theory called *Conceptualism*.

7. *Hugo of St. Victor* (1097-1141). Hugo declared that uncorrupted truth cannot be discovered by reasoning; yet he attempted to give, in his *Summa Sententiarum*, a rational presentation of the Christian doctrines. He was the first of the *Summists*, or those giving abridged views of theology.

8. *John of Salisbury* (—1180). John in his *Metalogicus* defends logic against those who despised scholastic training; yet he adds that dialectic is like the sword of Hercules in a

pigmy's hand, unless there be added a knowledge of the Sciences; and that love, not logic, is the fulfillment of the law. In his *Polycraticus*, he gave an inventory of what the scholastics had accomplished up to his own time. His works are valuable, giving, as they do, an account of the schools, and the logical discussions of the period. He wrote elegant Latin, was a great admirer of Cicero, and considered himself an Academician; but with him the first period of Scholasticism or the supremacy of Plato, comes to an end.

CHAPTER XIV

Scholastic Philosophy—Second Period

1. *Arabic Philosophy.* In order to understand the second period of Scholastic philosophy, it is necessary to consider Arabic philosophy, and the revival of Aristotle.

Arabic philosophy is Greek thought, with modifications and additions, expressed in the Arabic language, and shaped by oriental speculation. The Mahometan theologians inquired how the absolute unity of God is consistent with his manifold attributes, and how the sovereignty of God consists with free will in man. They regarded space as pervaded by inextended atoms, and time as divided into infinitesimal instants. Each change in the atoms is, according to them, owing to the direct act of God, and the same is true of human conduct. God is the sole cause in the universe, if the Arabic theory is true.

(1) *Alkendi*, a native of Bosra, who flourished in the ninth century, and variously styled, the excellent one of his century, the only one of his age, the philosopher of the Arabians, was the author of more than two hundred books of which about thirty are on philosophy. He gave great attention to logic, and regarded mathematics as the foundation of all science. His works were highly esteemed by Roger Bacon. Alkendi was also an astrologer.

(2) *Alfarabi* (—950). Alfarabi wrote on logic, in which he followed Alkendi; he wrote on many other subjects, part of the books were commentaries on Aristotle. The Christian Aristotelians often quote him and referred to his commentaries on Aristotle as *De demonstratione*; the influence exerted by them was very great.

(3) *Avicenna* (980-1037). Avicenna, a native of Bokhara, was regarded as the greatest of the Oriental philosophers. His treatise on Oriental philosophy was known to Roger Bacon, and was highly prized by him. Avicenna was considered as somewhat pantheistic by the more orthodox Averroes.

Only a portion of his works is extant—that treating of the five universals of Porphyry; it seems to settle the dispute about universals, thus: *Universalia ante multitudinem*, as in the divine understanding; this is realism. *Universalia in multitudine*; the name is common to the individuals; this is nominalism, *Universalia post multitudinem*, as concepts; this is conceptualism. Thus in a certain sense, all parties to the dispute are right; they are wrong only in their extreme views.

(4) *Algazel* (—1111). Algazel drew crowds, as a popular lecturer on philosophy, at Bagdad, Jerusalem, Damascus and Alexandria; but believing that philosophy resulted in an indifference to religion, he wrote two works: *Tendencies of the philosophers*, and *Destruction of the philosophers*. In the first he gave the state of the speculative sciences, and in the second he pointed out their errors and contradictions, and their divergencies from the Moslem faith. He had strong tendencies towards Mysticism; he died in seclusion as a monk.

(5) *Averroes* (1126-1198). Averroes was born at Cordova in Spain. His early life was spent in study, under the best teachers of the age. He made great progress in mathematics, astronomy, theology, medicine and jurisprudence.

The times were stormy; the Saracens in Spain were somewhat divided, and were closely pressed by the Christian armies on the north, but with the influx of fresh tribes from the desert, they rallied and defeated the forces of their enemies, and established the sway of Moslem in greater splendor. Schools and colleges abounded under the patronage of liberal rulers.

Averroes was made Kadi of Seville, and held a like office at Cordova, but through court intrigues, he was banished, and suffered insults from the ignorant multitude who imagined that philosophy was dangerous to the true faith. He was, however, restored to honor, which he enjoyed the rest of his life.

The historic fame of Averroes has come chiefly through the Christian schoolmen, who from his writings, acquired a more complete knowledge of the philosophy of Aristotle, who at that time was held in the highest honor.

Averroes interpreted Aristotle as a truth-seeker, and not in the interests of theology; he also objected to the allegorical interpretations of the Koran, and maintained that a return should be made to the plain teachings of the prophet. In matters of this world, Averroes held to the point of view of science, but in religion, he accepted a personal power distinct from the truth of science, though not in conflict with it. In other words, science, which can be understood only by the intelligent few, he cultivated like a Greek philosopher; but religion, which is a common life for all, he enjoyed as a personal experience. The mixture of science and religion, or of philosophy and theology, awakened popular hostility to philosophy, and was a source of corruption to theology; but this position was the reverse of that of the Christian schoolmen, who employed philosophy to make clear the doctrines of theology to the eye of reason.

Rejected by his Mahometan co-religionists, Averroes found a hearing from the Jews, and his writings became textbooks in their schools.

The theory of Averroes, that the intellect is one and continuous in all individuals, and is their life and joy according to their degree of illumination, was interpreted as one soul common to all mankind, and thus conflicted with personal immortality. This theory of the unity of intellect in all men was made a matter of special investigation by both Albertus Magnus and Thomas Aquinas.

At Paris Averroes came to be regarded as standing for science against theology, and found eager followers in the members of a skeptical society; but at Oxford he had become an authority as an expounder of the works of Aristotle. Roger Bacon recommended the study of Arabic as the only means of acquiring a correct knowledge of Aristotle, the great philosopher.

At the university of Padua, Aristotle was studied in Greek which led to a neglect of the works of Averroes. Thus is illustrated the fact that in order to maintain itself with the course of time, philosophy must keep pace with the continual advancement of science, and the general progress of the human race.

2. Let us now return to the Christian Scholastics of which we shall treat of only the principal:

(1) *Albertus Magnus* (1193-1280). Albert was called *the Great*, on account of his extensive learning and his great ability as a teacher. He was a native of Lauingen in Swabia, and was educated at Padua and Paris.

He reproduced, in Systematic order, the whole of the philosophy of Aristotle, and adapted it to the requirements of ecclesiastical dogmas. The Latin translations of Aristotle from the Arabic, as well as some translations from the Greek, were accessible to him. Platonism and Neo-Platonism were not without influence, but Aristotle was his great authority.

To Albert as to Avicenna, the universal existed in a threefold form: as *universale ante rem*, in the mind of God, according to Plato and Plotinus; as *universale in re*, the collection of common qualities found in every individual of a class, according to Aristotle; as *universale post rem*, in the mind of man as a concept, having its counterpart, or combination of qualities, in every individual of the class, according to Abelard and the conceptualists generally. Hence and finally, the *universale post rem* is a subjective concept formed *a posteriori*, corresponding to the *universale in re*, the collection of the common qualities of all the individuals of the class, and an imperfect copy of the *universale ante rem*, formed *a priori* in the mind of God, as the divine pattern after which the individuals of the class were created.

Albert defines logic as the science which teaches how to deduce the unknown from the known; and in his interpretation of Aristotle he follows Avicenna rather than Averroes whom he frequently combats, though occasionally quotes with approval.

The ethics of Albert rests, very properly, on the freedom of the will, and the virtues he enjoins consist of the cardinal virtues of the ancients combined with the Christian virtues of equal rank.

In psychology, he taught that the lower faculties were united with the spirit, the bodily organs being necessary only in the present life.

In theology, Albert separated the dogmas of the church from philosophical speculations. The doctrines of creation, incarnation, redemption, forgiveness of sin, and immortality he accepted on the authority of revelation apart from philosophy, though he sought for rational arguments in support of

these doctrines, for the confirmation of believers, the instruction of the ignorant, and the refutation of unbelievers, holding that these articles of faith are illustrated, but not discovered by the light of reason. Albert was perhaps the most learned man of his time as well as the most widely read. Almost the last act of his life was the defence of the orthodoxy of his friend and former pupil, Thomas Aquinas.

(2) *St. Thomas of Aquino* (1225-1274). Thomas Aquinas was of a noble family and allied to several of the monarchs of Europe. He was the Son of Landulf, Count of Aquino, in the territory of Naples.

He received his elementary education at the monastery of Monte Cassino, after which he spent six years at the University of Naples. He joined the order of the Dominicans, against the will of his family. He then studied under Albertus Magnus at Cologne and at Paris. Receiving his degree, he engaged in the controversy between the Begging Friars and the University, concerning the liberty of teaching, and taking sides against the University, he won his case.

He did active service for his order and for the church, writing, lecturing, and frequently taking long journeys. He was appointed to the Chair of Theology, in the University of Naples, where he was actively engaged in writing and in giving instruction. He refused the archbishopric of Naples, and the Abbacy Monte Cassino.

He was summoned by Pope Gregory X to attend the Council at Lyons, to aid in adjusting the controversies between the Greek and Latin Churches.

Though suffering from illness, he at once set out for the Council, but his strength failing him on the way, he was carried to the Cistercian monastery of Fossa Nuova, where he died, after a lingering sickness.

Thomas wrote many books, the greatest of which is the *Summa Theologiae*. His other books were preparatory to this which was intended to give a summary of all knowledge, especially the doctrines of the church, arranged in a systematic form, and explained according to the logic of Aristotle.

According to Thomas, there are two distinct sources of knowledge, Revelation and Reason, of which Revelation is the superior. Revelation, the divine source of knowledge,

has two channels—Scripture and the Church. Reason, the fountain of natural knowledge, has for its channels the various systems of philosophy, especially those of Plato and Aristotle—Plato for thought, Aristotle for method. Modern natural science makes observation the chief if not the sole foundation for knowledge.

Thomas divided the virtues into natural and theological; the natural into intellectual and moral; the intellectual or speculative, dealing with the right use of reason; and the practical, moral or ethical, dealing with others, as justice, or with ourselves, as prudence, temperance, and fortitude. The theological virtues are faith, hope and love. Free will, the condition of duty, is supplemented by Divine Grace. As to universals Thomas was in agreement with Albert.

The *Summa Theologiae* is divided into three parts, treating, respectively of God, of Man, and of the God-Man; the first and second parts were the work of Thomas himself, the last was finished by other hands, according to his plan, as he died before it was completed. It is not possible to follow this work in all its details, suffice it to say that it was elaborated with great logical skill, and pains-taking thoroughness. Let those who sneer at the ignorance of the schoolmen read this great work of St. Thomas.

With Thomas, Scholasticism culminated.

(3) *Duns Scotus* (-1308). The place and date of the birth of Duns Scotus are both uncertain. He showed marked ability as a boy, and in early life joined the Franciscan Order. He studied at Merton College, Oxford, of which he was made a fellow. In mathematics and philosophy, he was especially proficient, and when Varron vacated the chair of philosophy, he was appointed his successor. His lectures on philosophy attracted crowds of students. He went to the University of Paris from which he received his doctor's degree, and was shortly after appointed regent of the Theological School. He gained great reputation, as a controversialist, by his able defence of the doctrine of the Immaculate Conception, refuting two hundred objections against the doctrine by the Dominicans, and establishing it by a cloud of arguments; and such was his dialectical skill that he won the title of *Doctor Subtilis*.

Scotus was sent by the general of his order to Cologne to assist in founding a University, and to engage in a contro-

versy with the Beghards and Beguines, companies of men and women who devoted themselves to a religious life and the care of the sick, without binding themselves by strict vows not to return to secular life. He was received with great ceremony by the city officials, but after a short residence died of apoplexy.

The opinions of Scotus were influenced by the fact that he was a Franciscan and Thomas a Dominican, and that antagonism existed between the Franciscans and the Dominicans; hence his system is an elaborate criticism of that of Thomas, and hence also of his partisans.

Thomas and Scotus differed in their views regarding the relation of philosophy to theology. With Thomas philosophy must ever be found in agreement with theology, when both are understood, as both are expressions of the same truths, while with Scotus the dogmas of the church were absolute truths from which philosophy sometimes diverged, theology also revealing truth not accessible to philosophy, as the creation of the world, the immortality of the human soul, and the existence of God, the Almighty, the Divine cause of the universe. He admits that philosophy can demonstrate the existence of an ultimate cause of the universe, but not that this cause is almighty and Divine, which attributes are revealed by theology. He based the doctrines of Christianity and the rules of morality on the arbitrary will of God. It is, however, more reasonable to believe that the laws of God accord with infinite wisdom, and that they were established for the highest welfare of the universe, though the specific design cannot always be discovered by human reason.

Scotus agreed with Albert and Thomas in regard to the three-fold existence of universals, though he differed from them with reference to individuation, holding that the universal essence and the individualizing determinations do not correspond to form and matter, but that individual characteristics are form as well as the universal essence. The truth is, the genus has attributes universal for the genus; the species adds to the universal of the genus, the peculiar characteristic of the species, which is universal for the species but not for the genus, so that the content, or common qualities of the species = the content of the genus + the characteristic of the species; the individual adds to the contents of

the species its own peculiarities, so that the content of the individual = the content of the genus + the characteristic of the species + the peculiarities of the individual. Distinction, however, should be made between the permanent peculiarities of the individual, and the accidents, as a wart on the hand, which may come and go.

In regard to the will, Scotus held to its freedom in a more absolute sense than did Thomas.

Scotus was the author of numerous works, among the most important of which are those commenting on the writings of Aristotle.

In showing the divergence between philosophy and theology, Scotus took the first step in causing opposition between them, which led to the decline of Scholasticism.

(4) *William of Occam* (—1347). William was born in the village of Ockham in the county of Surrey, and educated at the Merton College, Oxford, and at Paris where he was first the pupil, then the rival of Duns Scotus. He was the provincial of England at the assembly of the Franciscan Order at Perugia, and headed the revolt of that order against Pope John XXII. He was tried for heresy before the bishops of Ferrara and Bologna, and imprisoned four months in the dungeon of the papal palace at Avignon. Managing to escape with his companions, Michael of Cesena, general of the order, and Bonogratia, they found their way to Munich to the Court of Louis, who had been legally elected Emperor of Germany, and whose election, the Pope refused to ratify. The proposal he made to Louis was: "Defend me with the sword, and I will defend you with the pen." The proposal accepted, he sent forth pamphlets in refutation of the extravagant claims of the Pope, showing that the office of King was independent of that of the Pope, and no less of divine authority.

From his logical ability, William was called the *Invincible Doctor*. In regard to universals, he strongly objected to the hypostetizing of abstractions. He took the extreme view of Nominalism, that the name is the only universal, and though he added nothing new to the doctrine, he made it more intelligible by showing that words in speech were used like figures in Arithmetic or letters in Algebra, as when we let x stand for the unknown quantity required, or when

we use the word triangle for the thought of any one of the infinite number of individual objects to which it may be applied. As words stand for thoughts, and thoughts for things, each being inadequate, there is a double inadequacy, and the outcome is skepticism.

He contended that everything that really exists is individual, that to seek the cause of individuality is to seek the cause of the individual, and that it is not the individual that needs explanation, but the universal. For his extreme nominalism, he claimed the authority of Aristotle, though strictly not justly. Thus he held that the universal is not any really existing thing, but is merely a term or predicable made universal by its application to any individual of the class, and hence a common noun.

It is of course true that the universal is no real thing existing by itself apart from the class; apart from the pattern in the Divine mind, after which the objects of the class were formed; apart also from the concept of the class in the human mind, which are the errors of Realism; but the universal does really exist, as a combination of qualities in any individual of a class, similar to that in any other individual of the class. The name is of course universal, as the name elephant is applicable to every elephant, and why? because they all have certain qualities which entitle them to be classed together and called by the common name *elephant*. We call a certain class of animals vertebrate, not because one identical skeleton will do for all, but that the skeleton of one, in its essential features, is similar to that of any other animal of the class.

William more completely severed philosophy from theology than did Scotus, and this meant the dissolution of Scholasticism, which consisted in their union. With Occam, theology is related to practical religion, philosophy to speculative thought; theology is based on revelation and accepted by faith, philosophy deals with universal truth apprehended by reason. The rules of morality are expressions of the arbitrary will of God, according to Occam and are not based on rational principles. God's commands we may, however, believe to be reasonable, though the human mind may sometimes fail to discover their reasons, or God's design in requiring obedience.

3. *Mysticism* is a compound of thought and feeling, of philosophy and religion. On its philosophic side, it is an attempt to apprehend the ultimate reality of things by immediate intuition, and on its religious side, it is an effort to grasp the Divine essence, and to enjoy the blessedness of actual communion with the most high God. Its seed may be found in Plato's doctrine of innate ideas, which germinated in Philo, developed in Gnosticism, expanded in full bloom in Neo-Platonism, and bore fruit in the period of Scholasticism. It is rather a phase of religious philosophy, than a system, and finds a possibility of development along with various schools.

Mysticism is based on feeling rather than on intellectual intuition and as a movement, both in the philosophic and in the religious direction, is not altogether without justification. The human mind has the faculty of rational intuition which immediately apprehends the necessity of the conditions of phenomena; and the system of philosophy which ignores this fact is without a rational basis. For example, it is intuitively certain that there is a cause for every event, that succession implies time, that body and motion imply space, as the conditions of their possibility, that the universe implies an ultimate reality, without beginning, and hence eternal. But rational intuition must be kept within its proper bounds; while it declares *a priori* that every event must have a cause, it does not tell us the cause of any particular event; that must be determined, if determined at all *a posteriori*, by investigation guided by experience. While, rational intuition apprehends the necessity of an ultimate reality, the eternal cause of the universe, the character of that cause, must be determined, if ever known, by the nature of the universe, or be made known by revelation.

On its religious side, Mysticism is justified by the fact of Christian experience. The Spirit itself, through the feeling of love, beareth witness with our spirits that we are the children of God; and this is done by the love of God shed abroad in our hearts by the Holy Spirit which is given unto us. Mysticism rightly held to this religious experience.

Mysticism does not hold with Pantheism that we are naturally at one with God, but that we are in a state of alienation, and must be brought back, by the new birth, to

a state of union with the Divine Being, as the goal of religious attainment. This sufficiently differentiates Mysticism from formal or ritualistic Christianity. It is distinguished from the evangelical systems by the intensity with which it claims to realize, by the feeling of love, the divine presence. So vivid is the realization that the tendency of the Mystic is to lose himself in the excess of feeling. His personality becomes weakened, and all other realities seem unreal. Reason should be cultivated while love is enjoyed.

The Mystic's ideal of life is not that of ethical energy doing good by promoting the welfare of the human race, nor that of dialectical disputation, but in meditation, and in the enjoyment of love by devout communion with God.

The error of Mysticism consists in exaggerating feeling an essential element, by making it overshadow rational theory and practical duties. Its opponents, by their opposition, have drifted farther into formal religion, and ritualistic observance, having the form, but denying the power of Godliness. Evangelical Christians are benefitted by endeavoring to observe a happy mean between these extremes, by enjoying a religious experience, while understanding its theory and in discharging the duties of life. It is the spiritual birth-right of every Christian to enjoy the love of God in the heart; and at the same time, it is his duty, as far as he is able, to understand his religion, to assist his neighbor, and to labor for the well-being of the human race.

We have said that the Mystics have some grounds for their belief; they claim to know the absolute cause; it is not so much the knowledge that is at fault, but the way they reach that knowledge; they claim to reach it by immediate intuition in the form of feeling, irrespective of the universe, the effect of that cause. The absolute cannot be reached in that way. Rational intuition does not begin, *a priori* with the absolute, with cause, with time, with space, and then deduce the universe, events, succession, body, and motion; it reverses this order, and begins, *a posteriori*, with the known facts of experience, as it has a right, and by its innate power, not innate knowledge, it apprehends the absolute, cause, time and space, as the necessary conditions of the facts known by experience—a procedure at once logically sound and fruitful of consequences. To begin with

conditions instead of the conditioned, and to hold that conditions can be known apart from the condition, leads, on the one hand, to the wild hypotheses of a pre-existing state, or to the present empirical intuition of the absolute and of cause in general, which opens the way for extravagant claims and wild fanaticism. Ideas, as universals, are not apprehended *a priori*, apart from objects, as Plato taught. Aristotle's doctrine of *form* is much more correct. Certain qualities, essentially similar, are found in every object of a class; but this combination does not exist by itself apart from the objects, but the idea or notion of this combination has a mental existence in the human mind, but formed *a posteriori*, by examination, generalization, and induction. There is, however, no objection to the view that the pattern of the universal existed in the Divine mind before the existence of the objects of the class, and that the objects of the class were formed according to this pattern.

It is easy to show how we reach the condition from the conditioned: Since body and motion are facts of experience, there must be space in which bodies exist and move; since there is succession of phenomena, there must be time or duration in which succession takes place; since there are events there must be cause, for non-entity cannot jump into being; since the universe is, there must be the eternal reality we call God, as the condition on which the universe depends.

We shall best understand Mysticism by knowing what the Mystics actually taught which we shall find in a review of their doctrines.

(1) *Erigena* laid down what may be called the principle of Mysticism: Out of the eternal incomprehensible essence, the world of ideas is eternally created, constituting the Word or Son of God, in whom all things exist. All existence is a Theophany. God is the beginning of all things, and all things return to God, and in Oneness with God, we realize our highest blessedness. The Mystic assumed to have such an intimate union with the Divine Being, both in thought and in affection, that he can apprehend God by reason, or realize Him by the deeper intuitions of love. In this is found the first principle of Mysticism, whatever may be its special outward form or manifestation.

(2) *Bernard of Clairveaux* (1091-1153). Bernard was an eloquent divine, and exerted great influence in the church. He condemned Abelard's distinctions as externalizing the doctrines of the faith, maintaining that religion related to the inner experiences of the soul.

He held that reason has three stages, and through these the mind rises to the contemplation of the Divine Being. Still more exalted is the ecstatic vision sometimes granted to those who are dead to the world and alive unto God, such as St. Paul had when he was caught up to the third heavens. This state can be reached only by those who practice extreme self-denial, and who merge their love of self in the love of God; for God can be all in all only when all selfishness is extirpated from the soul.

(3) *The Victorines, Hugo, Richard and Walter*, of the monastery of St. Victor, near Paris, further developed Mysticism by publishing popular books calculated to awaken piety and to inspire devotion. These books explained the conditions necessary to be observed in order to reach a state of ecstasy in communion with God.

(4) *Bonaventura* (1221-1274). John of Fidanza was born at Bagnarea in the Papal states, and was destined by his mother for the church. He received the cognomen of Bonaventura from St. Francis of Assisi, who is said to have performed on him a miraculous cure. Distinguished for the brilliancy of his intellect and the purity of his character he was elected general of the Franciscan Order. He introduced stricter discipline into his Society, and advocated asceticism as a means of Grace. By his order, Roger Bacon was interdicted from lecturing at Oxford. He threw the weight of his influence in favor of the election of Gregory X to the Papal chair. For this he was rewarded by the Pope, who conferred on him the titles of Cardinal and Bishop of Abano. He received the degree of Doctor in 1255, and on account of the purity of his life, he was styled *Doctor Seraphicus*. He died at the great council of Lyons of which he was a member.

In cultivating mystical piety, Bonaventura differed widely from Roger Bacon, who was a pioneer in Natural Science, and from St. Thomas, who brought the Aristotelian Scholasticism to the height of perfection.

Bonaventura accepted realism, the theory that universal ideas do not exist in the objects of a class, but in the Divine

mind as the patterns after which these objects were formed, which may be accepted as true; but if universals do not exist in the objects of a class, *as ideas*, they do exist in these objects as combinations of similar attributes; and a nation of this combination of attributes is a concept in the human mind.

Bonaventura held to three steps in knowledge—the senses giving empirical knowledge, reason which examines the soul itself the image of God, and that transcendent mystic act which grasps the Divine Being and enjoys his love.

Reason can discover certain moral truths as basal principles; but other truths, as the attributes of God, it can apprehend only by divine illumination, for which the proper means must be employed, as fasting, prayer, meditation, and the strict practice of every virtue. By these means, the soul can rise to an ecstatic union with God. There is a great truth here which may be accepted, if the depth of feeling is guarded from excess, and the danger of running into extravagance be avoided by sobriety of judgment.

(5) *Meister Eckhart* (1260-1329). Eckhart's mysticism was more of a theoretical character than that of the Scholastic mystics in general. He evolved a philosophy of mysticism freely from pure reason, without basing it upon the dogmas of the church; but through his system, these dogmas often acquired a new meaning.

In the fusion of feeling and knowing, the mystics generally left the control with the feeling. Not so with Eckhart; for with him reason was the controlling element, and the speculative view, the matter of peculiar interest.

Eckhart considered the *Absolute* to be the primal indeterminate essence, the potentiality of all things, the Godhead, whose nature is to come, by a triadic process, to consciousness, as the triune God, the Father, the Son and the Holy Spirit. How can man know God? To be dead to self is to be alive to God. The renunciation of selfhood, Eckhart called *decease*, and when that is completely effected, God reveals his Son in us, and we become one with God, which is recognized by a rational act called *Fünklein* or flash of light.

(6) Other distinguished mystics may be mentioned: *Heinrich Suso* (1295-1266) was distinguished for his austerity, poetic fancy, and fervency of feeling. *John Tauler* of Stras-

burg (1300-61) was more practical than Eckhart, and less emotional than Suso. He was a distinguished preacher, and withal a benevolent man. When the plague visited Strasburg he remained at his post, and encouraged his terror-stricken people. His theology is the purest type of mysticism, insisting on purity of morals, personal relationship to God, and freedom from bondage to ecclesiastical shackles. *John Ruysbroeck* (1293-1381) was the leading mystic in the Netherlands. He discriminated between truth and error, and dwelt on the means by which the mystical union with God is to be attained.

John Boehme (1575-1624) claimed to have a direct illumination, so that he could see the root of all things, the Ungrund of events, the origin of all things, the being of God. By looking into the heart of things, nature became unveiled to reason, to mystic feeling, and all mysteries became clear. Of course, such extravagant claims can not be justified.

Other pious writers of mystic tendencies may be noted: Thomas à Kempis, Madam Guyon, Henry More, George Fox, William Law, St. Martin.

CHAPTER XV

Transition to Modern Philosophy

1. *Cardanus* (1501-76). Cardanus explained nature by two principles: matter, the passive principle, and the world soul, the active principle which by pervading matter, and bringing it into order causes light and heat. Attraction and repulsion, the causes of motion, become in higher beings, love and hatred. The masses, it is true, should accept the teaching of the church, but the thinker should engage in the pursuit of truth. Cardanus was a good mathematician; he discovered a formula, known as *Cardanus' formula for the solution of cubic equations*. He was the author of interesting works on mathematics, physics, astrology; and he wrote an autobiography. His independence, as a thinker, is to be noted, as indicating the current of thought.

2. *Telesius* (1508-88). Telesius explained nature in much the same way as Cardanus—passive matter, heat of which the sun is the source, the cause of repulsion, and cold from the earth, the cause of attraction, and on these all change and life depend. He maintained that Aristotle's doctrines must be replaced by facts derived from an empirical examination of nature itself, and that all knowledge begins with sensuous experience. He admits, however, the spirituality and immortality of the soul. The different virtues he regarded as the manifestation of the instinct of self-preservation. He revived the doctrine taught by Democritus, that all the senses are modifications of the sense of touch. It is true, that they all involve contact—in case of sight, light from an object in contact with the eye, and in case of hearing, waves of air in contact with the ear.

3. *Bruno* (1548-1600). Giordano Bruno was born at Nola, a village in Italy near Naples, where he was educated. While yet a young man he became a member of the Dominican Order, but he shortly withdrew from the society, as intolerable to his headstrong disposition. Accused of im-

piety, he wandered to different cities, intent on knowing for himself the mysteries of the universe, free from the shackles of authority. He was greatly influenced by the scientific movement of his time, and accepted the heliocentric theory of Copernicus, regarding the earth as one of the planets of the solar system, and the universe as a greater system of solar systems.

The eternal God he believed to be immanent in the universe, as its infinite cause, its substance and soul, its upholder and life. He distinguished between the universe and the world. The universe is the manifestation of God, the eternal being, without beginning or end, omnipotent and omnipresent; the world of beings, the creation, had a beginning, and will have an end. The human soul, the highest form of cosmic life, has its origin in the infinite soul of the universe.

Bruno was well received in Paris, where he delivered lectures. He spent two years in England, and though delighted with Queen Elizabeth, he was disgusted with the brutality of the English masses. He engaged as a disputant at Oxford on the comparative merits of the Copernican and the Aristotelian theories of the heavens, and gained an easy victory.

Bruno regarded Aristotle with antipathy, much preferring the older philosophers, as Heraclitus and Democritus, and in this respect he was like Telesius and Bacon.

Bruno was the author of several important works: On the Copernican theory, on metaphysics, and a dialogue on morals. He attacked the established religion, jeered at the monks as pedants, and placed the Jewish records on the same level as the myths of Greece. He sought for unity, and found it in God, the eternal source and substance of the universe.

He accepted an invitation to visit Venice. He was arrested and brought to Rome and thrown into prison. After a confinement of seven years, he was excommunicated and burnt at the stake.

4. *Campanella* (1568-1639). Tommaso Campanella was born in Calabria and died at Paris. He held to two sources of knowledge—perception and reasoning. Perception is through the senses; but what is it that we immediately know?

It is the sensation, a mere modification of self, that we perceive or better say, we are conscious of. How then can I prove that objects exist apart from myself? Campanella replies, by reason. The inner sense reveals to me both my existence and my limitations; and since I am limited, there is an objective world that limits me. Something is gained by establishing the fact of a non-ego, the existence of external things; but do the senses report them correctly? They report relative truth. The objects are of such a nature as to affect us in a certain manner, and this answers the purpose of human knowledge; if not complete, it is at least relatively true. We judge from the sensations what the objects are, then picture them,

Let us look at the fact of knowledge in a somewhat different light: Strictly we do not perceive sensation; for to perceive means *to take through*. We do not take sensation through anything, but are immediately conscious of it; but we do perceive the external objects through the senses by means of the sensations they cause in us. We judge what kind of an object it is which gives us certain sensations, and ideate the judgment, that is, picture the object by the imagination, in conformity with the judgment.

The questions again arise, how do we know that there is an external object, and that it corresponds to our mental picture? If the object is wholly internal, it is incredible that several persons should perceive the same thing. The common perception can be explained only by a common external object, giving the spectators like sensations leading to the perception of the same object. But do we perceive the object as it is? It is more likely that we perceive it approximately as it is, than that we perceive it as it is not. Our perceptions are tested by the several senses converging on the same object, and by long experience, so that, except in rare cases, we can rely on them as giving us, if not complete truth, at least reliable relative truth. We call our friends by name, and they respond, signifying that our perceptions were correct; but it is well to remember that our judgments from sensation may sometimes be incorrect, and lead us into error.

5. *Bacon* (1561-1626). Francis Bacon was the youngest son of Sir Nicholas Bacon, a celebrated lawyer who for

twenty years was Lord Keeper of the Seals in Queen Elizabeth's reign. His mother, a cultured woman, was a daughter of Sir Anthony Cooke, tutor of Edward VI.

Of Bacon's eventful life, only the leading points can here be given. As a boy, he showed an acute intellect, and the Queen, pleased with his ready answers to her questions, called him her young Lord Keeper and Lord Keeper he afterwards, in reality, became. When twelve years of age, he entered Trinity College, Cambridge, and graduated in three years. He was not satisfied with the state of the sciences, and despised the Aristotelian philosophy, though he professed a veneration for Aristotle.

In company with the English ambassador, he visited France where he remained two years, either in Paris or in traveling through the provinces. At the death of his father, he was obliged to return to England, and found that he had not been provided for, as his father had intended.

To provide for his own support, he entered upon the study of law; but having been brought up in affluence, and not having learned the lesson of economy, he acquired the habit of borrowing money, and was ever afterwards embarrassed with debt.

He rose rapidly in his profession, as a lawyer, and was shortly elected a member of Parliament for Middlesex, and finally became counsellor to the Queen, though he was disappointed in not obtaining a salaried office, which he hoped to secure through the influence of his uncle, Lord Burghley, the Prime Minister.

Under King James, he first obtained the appointment to the office of solicitor, afterwards that of Lord Keeper of the Seals, then he attained to a seat in the Chancery Court, and finally became Lord Chancellor, and was created Baron Verulam, and Viscount of St. Alban. He was now the first officer of the Crown, and the ablest man in the State. But his downfall was near at hand. Accused of taking bribes, he was convicted, deprived of his office, fined and imprisoned; and though his fine was remitted, and he was released from prison by order of the King, he never returned to public life, but spent his time in literary and scientific labors, in which he delighted, and which had occupied his time and thoughts, more or less, for many years of his life.

Bacon planned to cover, in his works, the whole range of science and philosophy. He made an outline sketch of the entire field, but completed only a small portion of his projected work. His *Essays* are his most popular productions; they have been very generally read and greatly admired, and are well worthy of the perusal of every thoughtful mind. Take this sentence from his essays: "Reading maketh a full man; conference, a ready man; writing, an exact man." We see, at once, how concise is his style.

The *Novum Organum*, the *New Organ*, as the name signifies, was an attempt to unfold a new method of discovering truth, especially in science, by the process of induction, and thus it stands opposed to the *Organon* of Aristotle, which in the hands of the schoolmen, had become chiefly a deductive method of reaching conclusions and as Bacon averred, from barren general principles, not sufficiently established. *Instauratio magna*, the great renovation, was the name given by Bacon to his entire system.

In his theory of induction, Bacon distinguished between anticipation and interpretation. By anticipation, he meant hasty induction, such as passing from an examination of a few individuals of a species to a general principle applied to the genus embracing that species together with other species; whereas we should first, by interpretation of prerogative instances, carefully establish the principle for the species in question, then for another species of the genus, and so on for all the species of the genus, or at least for a considerable number of them, and thus legitimately establish the principle for the genus. Anticipation, however, jumps, from the few individuals of one species, over the other species to the genus, instead of ascending legitimately through the other species; it then by deduction reasons illegitimately down to other species of the genus. To illustrate: Having before us several rectangles, we find that the area of each is equal to the product of two adjacent sides. Now suppose we pass to the parallelogram, the genus of which the rectangle is a species, and say the area of every parallelogram is the product of two adjacent sides; but this is a hasty, and in fact, an incorrect induction by anticipation. Suppose then we descend to the rhombus, a species of parallelogram, by the deductive syllogism, and say: The area of every parallelo-

gram is the product of two adjacent sides; but the rhombus is a parallelogram; therefore, the area of the rhombus is the product of two adjacent sides. The major premise is an unwarranted induction, and is, in fact, false; the conclusion is not only unwarranted, but false.

Bacon calls the chief sources of error *idola*, idols, cherished false opinions: *idola tribus*, *idola specus*, *idola fori*, *idola theatri*.

(1) *Idola tribus*, idols of the tribe, tendencies to error inherent in human nature, as the assumption that nature corresponds to our ideas of order or perfection. Thus, as the circle is the most perfect curve, it was assumed that the planets moved in circles. There is tendency to hasty generalization, to believe in myths, omens, signs, and charms, to note the agreement of facts with proverbs, and overlook exceptions. Thus, you will have good or bad luck in a month according as you see the new moon first over your right or left shoulder, which seems to be always verified, as we have both good and bad luck every month. We notice the fulfillment and overlook the exceptions.

(2) *Idola specus*, idols of the den, the peculiar nature of ourselves, our companions, or our environment. The special bent of a mind, inherited or acquired, affects its opinions, and may disqualify it from passing sound judgments on matters concerning which it has received a bias. Some minds readily perceive resemblances; others quickly detect differences. The first are likely to make hasty generalizations; the others are apt to make needless distinctions. Some people are conservative, and cling to the past; others are progressive, and seek for radical changes, as they see little or no good in the present. Some delight in abstract speculations, or great generalizations; others are interested in concrete facts, and take no satisfaction in comprehensive theories.

(3) *Idola fori*, idols of the forum, the errors incident to the use of language, or to the meaning attributed to certain words, epithets, shiboleths, mottoes, party catch-words, and the like. People often wrangle because they attach different shades of meaning to the same word. Thus, to the word *will*, one attaches the meaning of volition, or decision; another the meaning of the power of choice. One uses the word *mind* in the sense of intellect; another in the sense of soul or spirit, including intellect, sensibility, and will.

(4) *Idola theatri*, idols of the theater, or errors springing from current opinion, or imperfect philosophical theories. Thus, various philosophers, especially the ancient, have found the principle of things in water, or air, or fire, in being or becoming, in number or in the *vous*. Some philosophers held to the certainty of knowledge; others to the impossibility of knowing anything whatever. Some hold that the senses are wholly unreliable; others that they are the only sources of knowledge. Some hold that universals exist only in the mind of God; others that they exist only in the human mind; some that they exist apart from any mind or from any object; others that they exist only in objects; and still others that they are merely names. Some hold deduction to be the true type of reasoning; others discount deduction, and assign the chief value to induction.

Bacon laid down the following rules for induction:

(1) Study the phenomena to be explained, in all their varieties and combinations, not only by simple observation, but also by experiment, when practicable. This gives the natural history of the facts.

(2) Seek for the conditions of the phenomena, whether mere antecedents, or causes producing changes, or forms giving permanent qualities. The forms include latent processes, resulting in slow changes of structure, or latent properties, supporting the permanent structure.

(3) Exclude things not found to be conditions of the phenomena.

(4) Negative instances, or the absence of the property to be explained, from certain objects of the class, are to be noted, and, if possible, accounted for.

Bacon called attention to the importance of examining solitary instances, as when the same feature exists in two objects otherwise different, or when a certain feature differs in two objects otherwise the same; also to the case of a varying property, either increasing or decreasing; to the conditions of the highest perfection of an organ or faculty; to parallel or analogous instances in different objects; to qualities accompanying and varying directly or inversely with one another; to the search for crucial instances in deciding between competing explanations of the same phenomenon.

Bacon placed a light estimate upon all that had hitherto been done in Philosophy or Science, whether by Empirics or Dogmatists. He said: "The Empirics are like the ant, they only bring together and use; the Rationalists are like spiders, which spin webs out of their own bowels; but the bee (the true philosopher like Bacon) follows a middle course, for she draws her materials from the flowers of the garden and field, and yet changes and digests them by a power of her own."

Macaulay says: "Two words form the key of the Baconian doctrine, *Utility* and *Progress*. . . . It was not by furnishing philosophers with *rules* for performing the inductive process well, but by furnishing them with a *motive* for performing it well, that he conferred so vast a benefit on society."

In Ethics, Bacon insisted on four things; the secularization of Ethics, or the separation of morals from religion; the disuse of metaphysical presuppositions, and the search for the motives of conduct; the exaltation of the welfare of society, over that of the individual; and the identification of the good with the useful, the moral with the beneficial.

Bacon attached only a slight value, entirely too slight, to the ethical speculations of the ancient philosophers. It would have been well had he given more attention to his own ethical practice.

In logic, he habitually exalts induction and disparages deduction, the two branches of logic now regarded as co-ordinate and of equal importance.

He attempts to belittle Aristotle especially, and to some extent Plato, the most illustrious of the Greek philosophers, who in powers of mind, and in intellectual achievement, were not inferior to Bacon himself.

Bacon did a good work in exposing the barrenness of deduction when separated from the complementary method of induction, and by insisting on the importance of interrogating nature, and rising, by cautious inductions, step by step, through intermediate principles, to the highest and broadest generalizations, thus supplying principles for safe and innumerable deductions. His oft repeated advice, "Interrogate nature," has been fruitful in good results. The rapid advance in science, since Bacon's time, is the result very largely, of the incentive he gave to thorough research.

The value of Bacon's doctrine does not consist in the details of his method, which were somewhat cumbrous, but in its aim and tendency; yet it is worthy of remark that the explanation he gave of heat is the one accepted at the present day. For many years after Bacon's time, heat was attributed to a special substance called phlogiston; but two and one-half centuries after Bacon's time, Prof. Tyndall, by a series of brilliant experiments, proved Bacon's theory to be correct that "heat is a mode of motion."

Bacon did scant justice to the Greek sages, whether called philosophers or sophists. He says "the sophists were vagrant and mercenary, perambulating the different states, parading their wisdom, and exacting a price for it, while the philosophers were more staid and liberal, in that they had fixed residences, and opened schools and taught philosophy for nothing."

Bacon quotes from Dionysius, an obscure writer: "The dialogues of Plato are words of idle old men to inexperienced youth." Does that do justice to Plato? He quotes from an Egyptian priest: "The Greeks were always children, and possessed neither antiquity of knowledge nor knowledge of antiquity." The fact is, however, the world has not produced a poet superior to Homer, an orator superior to Demosthenes, a sculptor superior to Phidias, a prose writer superior to Plato, a thinker superior to Aristotle, an architect superior to the builder of the Parthenon. What has Egypt to show against these? The ruins of temples, gloomy even in their best days; pyramids massive in magnitude, but rude and clumsy in structure; mummies of old pharaohs; a succession of dynasties of despotic sovereigns; but nothing that will redeem Egypt from the opprobrium of being "the basest of Kingdoms."

Bacon pretended to honor Aristotle, while he never lost an opportunity of giving him a thrust. Yet Bacon did the world a very great service; he incited the best minds to study nature, to investigate facts; he turned the attention of ingenious men to the investigation of machines for the alleviation of human labor; and if he could witness the vast results that have followed, especially in the nineteenth century, no one would be more astonished than himself.

Bacon stands as the pioneer in modern science. To show the difference between mediæval and modern thought, take, for example, the pumping of water: The schoolmen would say, Nature abhors a vacuum, therefore when the air is exhausted in the pump-stock, above the surface of the water, the water rushes up to fill the vacuum which nature abhors; but modern science declares, the pressure of the atmosphere on the water outside of the pump forces the water up within the pump, where the pressure is removed.

Bacon said, first study the natural history of objects, then their natural philosophy, or physics, and after that their metaphysics; he taught that physics deals with their material and efficient causes, and metaphysics with their formal and final causes; but the distinction of these four causes, Bacon borrowed from Aristotle.

Bacon's theories are more directly related to science than to philosophy, and on science they have produced the greater effect; yet they have not been without effect on philosophy, as can be seen in Hobbes, Locke, Hume, Hartley and Mill.

Science begins with facts, which it carefully observes, analyzes, classifies, and determines their conditions, causes, laws and consequences. Within its own sphere, science is supreme; but science is not all of knowledge; it leaves many things unexplained. Philosophy is deeper than science. It seeks for the root of the matter, and though sometimes baffled, yet it often succeeds in finding fundamental truths, far reaching in their consequences, that give unity and harmony to knowledge.

(6) *Hobbes* (1588-1679). Thomas Hobbes was the son of the vicar of Charlton and Westport. He had good preparatory training, and was sent to Oxford at the age of fifteen. He remained five years at the University, but pursued his studies in pretty much his own way, taking more interest in the discoveries of Drake, and in the wonders of the heavens than in the logic and metaphysics of the schools.

After leaving the University, he became tutor to the son of William Cavendish, Baron of Hardwick. The tutor and pupil soon became very much attached to each other, and were sent abroad together in a tour through France, Germany and Italy. Wherever he went, he heard the scholastic philosophy spoken of with scorn, and found that the little

learning he had acquired at the University was of no avail to give him standing in comparison with such men of science as Bruno and Galileo, or with a man of the world like Montaigne. He fell back on the Latin and Greek, upon which he bestowed years of labor. He wrote a translation of the Greek Historian Thucydides, which he afterwards published. He wrote in Latin and read the best Latin authors, till he acquired a good Latin style.

Through his relation with Young Cavendish, an important social and political figure, he became acquainted with the noted literary men of the day, as Bacon, Lord Herbert, and Ben Jonson. He did not accept Herbert's intuitional principles in philosophy, but like him, he was an independent, original thinker. He was somewhat intimate with Bacon. They frequently walked together, and he made notes of some of Bacon's apt sayings. Bacon employed him to make Latin translations of some of his essays. From these facts, he has been called a disciple of the great philosopher; but the fact is, Hobbs was an independent thinker. He disagreed with Bacon in assigning a greater value to deduction from general propositions and in his estimate of the value of Mathematics; and in both these respects, Hobbes was right, while Bacon was wrong.

His friend and patron, the Earl of Devonshire, suddenly dying, Hobbes became tutor to the son of Sir Gervase Clifton, and took with him a journey to the continent, but spent the time chiefly at Paris, where he directed his attention principally to mathematics, which he had neglected in his University course.

In 1631, he was recalled to England to take charge of the education of the young Earl of Devonshire, and in 1634, he went abroad with his pupil for a companion. He was now much interested in searching out the secrets of the physical world. He visited Galileo, then quite aged, and conversed with the members of the scientific circle in Paris, and was accounted one of the philosophers.

Hobbes held that all philosophical truth could be treated under three heads—*Body, Man and State*, which he proposed to work out in three separate treatises, entitled, respectively, *De Corpore, De Homine, De Cive*. The interactions of body were to be explained in terms of motion, by means of mathe-

matics, giving rise to the science of mechanics. Change in motion, however, requires cause; therefore, cause not motion is original. The principles of mechanics were to be applied to the phenomena, in the individual man, of sensation and knowledge, and to the affections, the desires and the passions, and thence extended to embrace political action and to the phenomena of society, by showing on what principles these were to be regulated, in order to preserve the existence, and to promote the welfare of the human race.

On account of the disturbed political condition of England, Hobbes again left for the continent, spending most of his time at Paris. He did not return to England for eleven years. In the meantime, he finished his work *De Cive*. It was immediately printed, but was, for a time, withheld from publication, and only a few copies were circulated among his friends, who received it with applause; and it was even praised by Descartes with whom he before had a controversy on certain points in the "Meditations."

The civil war in England turning against the royalists, many of them fled to Paris, among them the young Charles, the Prince of Wales, to whom Hobbes became mathematical tutor. These events induced Hobbes to write a book on Civil Government that might prove a check on what he regarded the tendency of the people, urged by their anti-social passions, to relapse into the original state of anarchy in which every man's hand was against the hand of every other man, rendering both property and life unsafe. He conceived the state as a great monster, a Leviathan, created by a compact of the people to secure themselves against the hazard to life and property, and in fact against their extermination. The government thus constituted, by the agreement of the people, had the rightful power of control, and as the legitimate authority, established the standard in all matters of conduct, whether civil, social, moral, or religious. Hobbes called his book *The Leviathan*, in agreement with his conception of the state. If a law seemed unjust to an individual, he was yet bound to obey it, and was not responsible for the injustice.

Hobbes was drawn into controversy with Bishop Bramhall of Londonderry on the subject of *Liberty and Necessity*. The Bishop was a staunch Arminian, and Hobbes was a powerful

advocate of determinism, or philosophical necessity. Hobbes answered the objection to punishment, that if free will be not a fact, then punishment is unjust to the criminal, by saying that punishment is justified by its good consequences in preventing the criminal from repeating his crime, and in the wholesome restraint it lays upon those who might be inclined to lawless conduct. This answer has weight in regard to the utility of punishment in checking crime, but it does not answer the charge of injustice to the criminal, if he acted under necessity. It is true, as Hobbes showed, that neither desires nor aversions are free, since they are caused by motives, nor is volition, choice or decision free, as an act or product, since it is caused by the ego, which alone is free; and though it acts in view of motives as reasons, it is not compelled thus to act by motives, which though causes of desires and aversions are not causes coercing the ego to decide. All events have causes; but the ego is a person, not an event, and as a person, it is free. The energy that makes the choice is the ego itself which, though causing the volition, is not caused to cause it. The ego is an original source of a train of consequences.

It is sometimes asserted that if determinism be not true, ethics cannot be a science; for if the will is lawless, it is impossible to predict what course a person will take. Can a determinist predict infallibly what course a person will take? Let him try it, and he will find that he will fail as often as one who holds to the fact of freedom. The power of prevision is not destroyed by freedom. A person is not necessarily lawless because free. Knowing the character of a person, the relative strength of his reason and passions, and his environment, a prediction, that will probably hold good, can be made in regard to his course of action in given circumstances. A thief will steal if he has opportunity, and if he believes that he can escape detection; an honest man will not steal. Again, though we may not always be able to predict what course a given individual will take yet we can predict, with approximate certainty, what will be the consequences of a right or a wrong course of conduct. It therefore, does not follow that freedom excludes the power of prevision and subverts ethical science; it is necessity that subverts ethical science, since it renders merit or demerit impossible.

Hobbes contended that true freedom consisted in the liberty to carry out one's decisions; but this is evidently the liberty of execution; that is, it is freedom from restraint or constraint in doing as one has decided to do, and not freedom to decide. Freedom to carry out the decision of the will, in external or executive act, is not freedom *to will* but freedom *to do*. It is not best to say the will is free; for the word *will* is ambiguous, and may mean the choice itself or the power of choice; the choice is an act or product, and is caused, and therefore not free; the will, as a power, is employed by the ego in choosing, and is, therefore, not free, but is the servant of the ego as much as is the hand; but the ego itself, and that alone is free, since though it may act, as it usually does, in view of motives, as reasons, it is not forced to act as it does by compelling causes. In fact, to act from compelling causes is not to act at all, but to be moved, to be passive as a foot-ball, making the ego altogether inert, which is wide of the mark. The energy, the dynamic of the act, is in the ego itself.

The view that freedom consists in liberty to do as one pleases, in realizing the choice in external action, was advocated afterwards by Edwards, who also undertook to show that the person does not cause his own volitions; for to cause his own volitions, says Edwards, he must act in order to cause them, and act in order to cause that act, and again act in order to cause that previous act, and so on, which involves an infinite series of acts, an impossibility in finite time; therefore, a person does not cause his volitions. The same reasoning will show that a person must act in order to perform any act whatever, even an external act, and act to perform that previous act, and so on, which involves an infinite series of acts, an impossibility in finite time; therefore, a person can not act at all, even in an external way in executing his volitions, which both Hobbes and Edwards allow, in the liberty he has of doing as he pleases. Edward's argument, in proving too much, proves nothing at all. The fact is, a person does not have first to act in order to decide, he simply *decides*; and having decided to act, he does not have to act in order to act, he simply acts.

Hobbes was much interested in mathematical studies. He attempted to square the circle, and actually boasted that he

had performed that extraordinary feat. This drew him into a controversy with Ward, the astronomer, and Wallis, the celebrated mathematician, in which contest, Hobbes got the worst of it, though he displayed originality and vigor of thought. This ought to be a warning to all circle squarers, a tribe which seems not likely to become extinct.

From the phenomena of perception, Hobbes inferred that ~~change of motion is the cause of all things.~~ Though motion is just as natural to body as rest, yet *change of motion* is an event that requires a cause, which, though not visible, is apprehended by rational intuition as *force or energy*.

Hobbes adopted the narrow view in philosophy, that all our knowledge is derived from sensation and reasoning; but *reason*, or rational intuition, not reasoning, adds original elements of its own; it apprehends, for example, that every event must have a cause, since non-entity cannot spring into being.

The natural state of man, according to Hobbes, is that of war, which on account of the selfishness of men, if not restrained, would result in extermination. To prevent this catastrophe, men entered into a compact, and formed a government, which checked violence and preserved life. In the present moral condition of mankind, anarchy, the absence of government, would result in violence, disorder, robbery and murder; it would be permissible only if mankind were morally perfect.

As government is preferable to anarchy, so is a strong government preferable to a weak one; hence according to Hobbes, monarchy is the best form of government, and absolute monarchy the best form of monarchy. The state, therefore, as represented by the sovereign, is absolute in all matters pertaining to law, morals, or religion; yet Hobbes accepted the golden rule as the immutable law of nature, which he stated in the negative form: *do not to others as you would not have them do to you*; but this conflicts with the view that the will of the monarch is the standard of right and wrong, as the arbitrary will of the monarch might conflict with the golden rule, as in fact, it often has done, still it is duty to obey, and the responsibility does not rest upon the individual.

Every idea we can form is, according to Hobbes, limited and relates to the finite, and knowledge of the infinite is, therefore excluded. We may expect absurdities, he declares, whenever we hear the words eternal and infinite; yet he holds that if we go back far enough, along the line of cause and effect, we shall reach an eternal cause that in turn did not have a cause. Does the word *eternal* here imply an absurdity?

Whatever may be said of his doctrine, Hobbes was a clear, strong writer, and a master of English style. His great work, the *Leviathan*, is well worth the reading.

CHAPTER XVI

Modern Philosophy—Cartesian

1. *Descartes* (1596-1650). René Descartes was born at La Haye in Touraine, France, and died at Stockholm, Sweden.

René having an inquiring mind, his father called him his "little philosopher." At the age of eight, he was sent to the Jesuit College at La Flèche in Angou, where he remained eight years.

His feeble health, while in college, excused him from the morning duties, and he thus acquired the habit of late rising, and of thinking while in bed, and this he kept up till he was called to Sweden, when he was summoned at five in the morning to give lessons to the Queen.

Even while in College, he began to distrust the scholastic philosophy, and finally he was led to begin his investigations, by not accepting anything in philosophy, as true, which it was possible for him to doubt.

The year after his graduation, he spent in Paris, and enjoyed the pleasures of the Capital with gay companions, and acquired a passion for gaming. He renewed his acquaintance with Mersenne, a former fellow student, who proved a faithful friend through life. He also formed the acquaintance of Mydorge, one of the ablest mathematicians of France.

Descartes now thought it best to abandon his frivolous life and devote himself to serious study. Accordingly he withdrew to a secluded part of the city, and for two years devoted himself to a profound study of Geometry, by which he developed a method which finally led to the fruitful science of Analytic Geometry.

His retreat being discovered, he was drawn out again into society. He escaped from these frivolities by taking service in the army of Prince Maurice of Orange, a general of great ability.

Walking through a street of Breda, his attention was drawn to a placard in the Dutch language, which he did not

understand. The writing was a difficult problem posted, as a challenge to any one to solve, if he was able. Descartes asked a stranger standing by to translate it for him either into French or Latin. The stranger, who happened to be Isaac Beekman, the head of the College of Dort, offered to turn it into Latin if Descartes would bring him a solution the next day. Descartes promised to do so, and fulfilled his promise. A friendship sprang up between them, which was afterwards broken, because Beekman published, as his own, an original essay on Music which Descartes had entrusted to him.

After spending two years in Holland, Descartes enlisted as a soldier in the Bohemian army, and went to upper Germany. The winter of 1619 he spent in comfortable quarters, and began his meditations, which led to his discourse on Method. He concluded that a system formed by one thinker would be more consistent than that formed by many. Instead, therefore, of studying truth found in many books, and combining the results into a conglomerate system, he resolved to form a system of his own, original and self-consistent, evolved from his own thoughts; but he saw the importance of getting rid of all prejudices and of admitting nothing doubtful, and beginning anew, on a sure foundation. He did not, however, apply the principle of doubt to religion or to politics, but separated them entirely from science and philosophy. While, therefore, he was a strict conservative in religion and politics, yet in science and philosophy, he was a radical reformer.

Hearing of a secret order called Rosicrucians, self-styled invisibles, who were supposed to be possessed of certain secrets in science, Descartes sought for them, but in vain, though he was afterwards suspected of being one of their number.

Descartes found that logic, though useful in proving propositions, and in communicating knowledge, was of little account in the discovery of truth. He laid down four logical rules: To admit as true only what is so perfectly clear and distinct as to admit of no doubt; to divide complex difficulties into simpler parts; to pass from the easy to the difficult; to omit nothing essential.

He returned to Paris, and with his old friends, Mersenne and

Mydorge, engaged deeply in the study of Optics, especially the theory of lenses, and their proper preparation, though he did not lose sight of his ultimate object, the renovation of philosophy.

He was discovered by one of his old comrades, and to avoid them, he returned forthwith to Holland, where he lived the greater part of the time, till he was fifty years of age. He made a brief visit to England, and again visited France twice on business. The second time, he was awarded a pension from the royal bounty, which was obtained by the Cardinal de Berulle, in consideration of his services to mankind.

A royal order summoned him again to Paris for new honors and an additional pension. Arrived at Paris, he found the country distracted by civil war. He paid for his royal parchment, but receiving no additional pension, he left immediately for his home in Holland. He changed his abode twenty-four times, while in Holland, chiefly to avoid the intrusion of visitors, or for the sake of pleasant surroundings, or to be in the neighborhood of some University.

Descartes kept up a correspondence, for many years, with the Princess Elizabeth, daughter of the ejected Elector Palatine, and to her he dedicated his "Principles of Philosophy."

His favorite science was physics in all its branches, especially in its relation to physiology, in which he made original investigations. A friend asking to see his library, Descartes opened the door into his dissecting room and pointing to animal bodies partly dissected, said: "These are my books." He supposed he had found the secret of a long life, and boasted that he expected to live to be a hundred years of age.

Descartes compared science to a tree of which physics is the trunk, metaphysics the root, and mechanics, medicine and morals, the chief branches; but he made mathematics the basis of mechanics. In fact, one of the greatest services rendered by Descartes to mankind was the invention of Analytic Geometry, the application of Algebra, especially the indeterminate equation, in which the unknown quantities are variable, to Geometrical investigations. This fruitful

invention prepared the way for that most powerful method of investigation, the Differential and Integral Calculus discovered by Leibniz and Newton.)

When about to publish a new treatise, Descartes was accustomed to send through his friend Mersenne, advanced sheets to the best thinkers, and thus obtain their criticisms, which he answered, and had printed in the appendix of his book. This led to some lively discussions, and caused his doctrines to be well known throughout Europe. In fact, Descartes' greatest service to mankind was in stirring up thought.

Descartes held that animals were mere automata, moved by impulse, and hence without feeling, thought or will; and on this account, he believed he could practise vivisection without cruelty, and in this way increase his knowledge of physiology. The cry of the animal undergoing the operation, he thought, did not indicate a feeling of pain.

Through the zeal of two of his disciples, Renery and Regius, who were professors in the University, Descartes was drawn into controversy with Voët, a distinguished theologian, who issued, in the name of Schöeck, one of his pupils, a pamphlet charging the doctrines of Descartes with Atheism. Descartes replied in a vigorous letter, yet he was summoned before the magistrates of Utrecht to answer to the charge. Descartes appealed to the French ambassador and to the Prince of Orange, who afforded him ample protection.

Receiving an urgent invitation, Descartes went to Stockholm in 1649, to be tutor to Queen Christina, who took an ardent interest in his doctrines, and desired him to be her personal instructor. He was summoned at five o'clock in the morning to give his lessons, which from the severity of the climate, and the unusual hour, and his watching with his sick friend, Chanut, proved too much for his strength. He died of an inflammation of the lungs, February 11, 1650.

The four great works of Descartes were *Discourse of Method*, *Meditations on the First Philosophy*, *Principia Philosophiae*, and *Analytic Geometry*. In addition to these great works, he wrote many minor books and innumerable letters.

Descartes held that knowledge implies clearness and distinctness, excluding all doubt; that objects of knowledge fall into groups having a central element with which the

investigation should begin; that investigation should pass from the simple to the complex; and that all the objects of a group should be known in their interconnections.

It follows, therefore, that whatever it is possible to doubt cannot be called knowledge. Descartes, consequently, began by doubting every thing it was possible for him to doubt; but he did not doubt for the sake of doubting. He was not essentially a skeptic, but an investigator. His object was to remove everything doubtful, in order to find a firm foundation of truth; but he found one thing he could not doubt—the fact that he doubted; but to doubt is to think, and to think is to be, which fact he thus expressed: *Cogito, ergo sum*, I think, therefore I am. Descartes did not mean, as he explained, that *sum*, I am, is to be understood as a deduction from *cogito*, I think, as the word *ergo*, therefore, would seem to imply. Since *ego* understood, the subject of *sum*, or I, the subject of am, is already assumed as the subject understood of *cogito*, or as I, the subject of think. What Descartes meant was that *the fact of his existence was revealed to himself, through his consciousness of thinking*, which is indubitable. He might just as well have said *Volo, ergo sum*, or *sentio, ergo sum*; but with Descartes, all mental action was thought.

Descartes was, therefore, certain of one thing—the fact of his own existence. The next step was to find a warrant for passing from the knowledge of his own existence to a knowledge of a world without, and this warrant he found in the existence of God. He says: "When the mind reviews the different ideas that are in it, it discovers what is by far the chief among them—that of a Being omniscient, all powerful, and absolutely perfect; and it observes that, in this idea, there is contained not only possible and contingent existence, as in the ideas of all other things it clearly perceives, but existence absolutely necessary and external. . . . So from its perceiving necessary and external existence to be comprised in the idea it has of an all perfect Being, it ought manifestly to conclude that this all perfect Being exists."

Of course existence is necessary to an all perfect being, as there can be no all perfect being without existence; but is it true that whatever we imagine, has an objective existence? Because we have an idea of an all perfect being, does it follow that an all perfect being exists?

Descartes met this objection by saying that the idea of an all perfect being is too great for us to form, and therefore it must have been formed in us by the all perfect being himself; and hence that God, the all perfect being exists. This helped the matter somewhat.

Can we not, however, form the idea of a more perfect being than ourselves? Is there any limit to the perfection of the idea we can form? Descartes' proof of the existence of God is scarcely satisfactory. A satisfactory proof of the existence of God follows from the truth, that *something is eternal*; for if ever there was a time when there was absolutely nothing, there never would have been anything, since *ex nihil nihil fit*, from nothing nothing comes, a principle to which Descartes himself assented. The eternal existence, the adequate cause of everything else, must contain within himself all actual perfections.

The fact being established of the existence of God, the Infinite and Perfect, Descartes would be authorized to say, as he did:

"God would, without question, deserve to be regarded as a deceiver, if He directly and of Himself presented to our mind the idea of this extended matter, or merely caused it to be presented to us by some object which possessed neither extension, figure nor motion. . . . But since God cannot deceive us,—for this is repugnant to his nature, as has already been remarked, we must unhesitatingly conclude that there exist certain objects, extended in length, breadth, and thickness, and possessing all those properties which are clearly apprehended to belong to what is extended, and this extended substance we call matter or body."

~~What did Descartes mean by matter or body?~~ He maintained that the sole essential property of body is extension, involving form, divisibility, and motion; but the extent of a body, as Descartes conceived it, is not a void; for he held that a vacuum is impossible; hence if the extent of a body is not a void, it must be filled with something extended which is not extension itself, extension, and that which fills the extent is called matter or body. It is better to say that body *has*. What then is matter? Whether it is continuous, as Descartes seemed to hold, or composed of atoms, with void spaces between them, as maintained by Democritus, it is certainly more

than the extension itself; it is, at least, energy which manifests certain attributes. Descartes objected to atoms, as a body, however small, is divisible in thought, *in infinitum*; but an atom may be simply energy located at a mathematical point.

Descartes speaks of the reciprocal action between the soul and body; but how is such action possible, if body is simply extension without dynamic powers, and mind is simply thought? The idea of *cause* finds no place in such a system.

The place of meeting for the soul and body, in the pineal gland, as Descartes held, does not explain their reciprocal action. If sensation is really caused by the action of the body upon the soul, and voluntary motion by the action of the soul upon the body, then the body can both exert and receive energy, in which case, it has dynamic powers, and is something more than mere extension; it is extended substance, but if it be true, as Descartes believed, that the apparent action of the body upon the soul, in sensation, is not real, nor the apparent action of the soul upon the body, in voluntary motion, then it was not proper for him to speak of the reciprocal action between the soul and body.

Hearing that Galileo, who had asserted the motion of the earth, was compelled to retract, Descartes, desirous of keeping on good terms with the church of which he was a loyal member, though accepting the Copernican hypothesis, maintained that the earth is at rest with respect to the vortex of ether that sweeps round the sun, just as a passenger, sitting on the deck of a ship, is at rest with respect to that ship, as it sails over the sea. This, however, does not prove that the earth is at rest; for just as the passenger moves with the ship, so the earth moves with the whirling ether. Descartes' theory of vortices was superseded by Newton's law of gravitation; but Newton's law does not account for the *force* of gravity, it only gives the law of its action, while Descartes' vortex may lead to an explanation of the force itself.

The three realities, then, whose existence Descartes considered certain, are God, the infinite substance, self-dependent and on which everything else depends, the soul the subject of psychical phenomena of which we are conscious, and the external world. The soul not only feels sensations, but thinks, is active and free. Body is more than extension; it

is something extended; it is not a vacuum, as Descartes admitted it is not, in denying the possibility of a vacuum, and in allowing motion.

In what respect is Descartes the founder of Modern Philosophy? In taking for its foundation the facts of consciousness. By the facts of consciousness, we are assured of our thinking and hence of our own existence. Though Descartes' demonstration of the existence of God is not beyond question, yet the existence of God, as the ultimate reality, the first cause, is certainly known. Admitting the being of God, and the fact that he gave us our faculties, yet if this does not guarantee the truth of all we think we know, it gives us confidence to believe that, under proper conditions, by the due observance of logical laws, and especially by verifying our conclusions, we may arrive at valid certainty, or actual knowledge.

Bacon did a good work for science in insisting on the importance of the discovery of facts by interrogating nature. Descartes found the true foundation for philosophy in the facts of consciousness. Bacon's method was too cumbrous to follow, though he was right in searching for facts. Descartes was right in the value he placed upon deduction, and in the importance he attached to mathematical investigation.

Both Bacon and Descartes were great men, and did inestimable service to mankind by exciting thought in the great minds of the world. Bacon's literary style is masterful, as seen in his essays; and Descartes was matchless in the transparent clearness of his style, as revealed in his meditations.

The philosophy of Descartes asserted the rights of reason, and maintained its authority; but in carrying out its views, it encountered great difficulties. What is the relation of mind to matter, of the soul to the body, and of the soul to God? It seems evident, from experience, that sensation is the effect of the action of the body upon the soul, and voluntary motion the effect of the action of the soul upon the body; but if the mind is nothing but thought, and the body nothing but extension, how can there be any interaction between them?

The difficulty can be avoided by admitting that the mind is more than thought, and matter more than extension. Mind is a thinking substance; it is that which thinks and

feels and wills. Thinking may be inextended; but it is not self-supporting; thinking doesn't think any more than running runs. The mind thinks, the boy runs; and though thinking may be inextended, the mind or soul, for all we know, may be extended; at all events, it has energy, or is dynamic. Matter is more than extension, it is an extended substance. There is no absurdity in supposing interaction between mind, a thinking substance, and matter an extended substance; both have dynamic powers. But we shall see how the successors of Descartes met the difficulties of his system.

2. *Geulinx* (1623-1669). Geulinx was a student at Lyons where he was afterwards a professor. Being a Cartesian, he was lightly regarded, and finally was driven from his position. He went to Leyden and became a Protestant. His life was not prosperous, though he continued zealously to teach philosophy when he had opportunity. He was finally appointed a professor in the University at Pesth, but he died shortly after his appointment.

Geulinx held that self-examination taught him, that only his thoughts and his will were his own, but not his body, which is a part of the material world. The mind, he thought, cannot act on the body. A person might just as well believe that he wrote the Illiad, or placed the sun in the heavens, as that he could raise his own hand; but on the occasion, when he wills to raise his hand, God intervenes and raises his hand for him. Neither can the body, nor any material object, act on the mind; but on the occasion, when an object is present, God gives him a sensation, to attract his attention, and presents the idea of the object. This doctrine is called *Occasionalism*.

3. *Malebranche* (1638-1715). Malebranche, who was the son of a high official at Paris, entered the Oratory at the age of twenty-two. He was so charmed with the writings of Descartes that he resolved to devote his life to philosophy. He accepted Geulinx's theory of Occasionalism, which he further developed.

The following is Malebranche's theory of perception: A material object acts on some organ of sense; this is followed by the excitement, reaction or response of the organ; sensation accompanies the excitement; the judgment concerning the object follows the sensation. This is the most complete

analysis of perception we have so far found; but Malebranche omitted the rational intuition of the necessity of the object, or cause of the sensation, also of the necessity of the ego, as the subject of the sensation, and he also omitted the ideation, or the construction of the mental picture of the object by the human mind. He called the object an idea presented by the act of God. But a complete analysis of perception will reveal the following elements: In general, an object to be perceived, a subject, or ego, to perceive; the synthesis of subject and object more specifically, the object or physical cause of the sensation; the subject with its physiological organs and powers of perception; the mechanical action of the object on the organs; the excitement of the organs; the sensation accompanying the excitement; the rational intuition of the necessity of the object and subject; the inferential judgment as to the cause of the sensation; the ideation of the judgment, or the picturing of the cause.

In allowing the action of the object on the organ, and the reaction of the organ, Malebranche could not deny that matter was dynamic; but he did not admit that matter could act on mind, and so he held that when the object excited the organ, God intervened and caused a sensation and presented his idea of the object which was what the mind perceived, so that our spirits perceive all things in God, who is the place of spirits. The fact is, the ideas are not God's ideas which we *perceive*, but our own ideas which we *construct*. Do our ideas correctly represent the objects? Not always. Our ideas are formed according to the judgment, and are correct or incorrect, according as our judgments concerning the objects are true or false; they embody, as images, or pictures, our knowledge, or beliefs, or our mistakes, in regard to the objects. The liability to error is found in the element of the judgment, or inference. In ordinary cases, the perceptions are reliable, as is verified when we address a person by name, and he confirms the correctness of our perception; but in unusual cases, we are liable to mistakes in our perceptions, which indicates that Malebranche's theory, that the ideas are God's ideas, is false; for God's ideas would be correct, yet the mistake may possibly be in our perception of God's ideas.

4. *Glanvill* (1636-1680). Joseph Glanvill was educated at Oxford; and discarding the scholastic philosophy, he was

greatly influenced by the systems of Bacon and Descartes. He wrote a treatise which he called *Scepsis Scientifica*, scientific doubt, or as he meant it to be understood, *Scientific inquiry*, and dedicated it to the Royal Society. He maintained the right of unrestricted freedom in thought.

Nature was to him a great automaton, operated by mechanical action. Holding that our knowledge must always remain imperfect, he maintained that our hypotheses should be held subject to modification as we obtain new light from experience and research.

His views in regard to causation are worthy of consideration. He says "We know causes, not by immediate intuition, but by their effects only. If we infer that one thing is the cause of another, we are only depending on the fact that the former always accompanies the latter; for *causality itself is unsensible*; but the inference from accompaniment to a causal relation is not necessary."

In saying that causality itself is "unsensible," and that the inference from accompaniment to a causal relation is not necessary, Glanvill meant that cause is not perceptible through the senses; that it is something more than an accompaniment or an antecedent, though immediate or invariable; and that an event is an effect, or more than an accompaniment or a consequent. To illustrate, suppose a stone supported at an elevation of fifty feet above the ground. Removing the support, the stone falls; but we do not regard the removal of the support the cause of the fall of the stone, but only as the non-dynamic condition; the real cause is gravitation, whatever that may be. Day follows night, but we do not regard night as the cause of day, but day follows the rising of the sun, and here we recognize a causal connection. A hunter takes his boy with him and goes out in quest of game. Whatever be the windings of the father, his son follows him; but the course taken by the father is the *reason*, not the cause, of the course taken by the son. The law of accompaniment here is that of reason and consequent, not that of cause and effect. When we lift a heavy weight, we discover that cause is energy, or something more than a mere antecedent. Cause then is energy, or active power, that is it is *force*.

5. *Pascal* (1623-1662). Blaise Pascal was the son of Etienne Pascal, president of the Court of Aids at Clermont.

The family had, for several generations, held posts of honor in the civil service, and had been ennobled by Louis XI

When Blaise was seven years old, his father removed to Paris for the better education of his children, and for the opportunity of enjoying scientific society.

Blaise was early taught Latin and Greek, but was kept from mathematical studies; but being present when certain scientific friends were visiting his father, and hearing some remarks about Geometry, he took up the study by himself, without books, and made considerable progress before his father discovered what he was about. He was then permitted to have access to mathematical books, and encouraged in their study. He became famous as a mathematician, and especially noted for his originality and depth of thought.

He was also distinguished for his scientific attainments. He proved that a barometric column was sustained to the height of thirty inches, not as it was said, by nature's abhorrence of a vacuum, but by the pressure of the air, by showing that the column of mercury would gradually fall as the instrument was carried up to the summit of a mountain.

Pascal turned his attention to religion which he valued chiefly for the heart experiences it confers, and in this respect he was a mystic, though he kept the power of clear thought. He supported the Jansenists in their controversy with the Jesuits. His eighteen *Provincial Letters*, so-called, are remarkable for their penetrating thought, and for the clearness and beauty of their style.

His *Pensées*, which are scattered fragments of Theological and philosophical speculations, never completed, show by their remarkable depth, what he could have done had his life and health been spared a few years longer.

The value of Pascal to philosophy is not to be estimated by any finished work, but by the stimulus he gave to philosophical speculation. His influence was widely felt, and powerful in its effect.

The Port Royal Logic, a popular work of great merit, prepared jointly by Arnauld and Nicole, was based on speculations found in the writings of Pascal.

6. *Gassendi* (1592-1655). Pierre Gassendi showed remarkable intellectual powers at an early age. He was sent to College at Digne, and made rapid progress in his studies,

especially in mathematics and languages. He studied philosophy at Aix, under Fesaye. Four years later, he received the degree of Doctor of Theology at Avignon, and took orders as a priest. In the same year, 1617, he was called to the chair of philosophy at Aix, where he lectured on the philosophy of Aristotle.

While occupying the chair of philosophy at Aix, he continued his favorite studies of physics and astronomy, by which he became dissatisfied, more and more, with Aristotle's philosophy, against which he published the first book and a part of the second of a treatise designed to be complete in seven books, but the remaining part of the treatise he never completed. The first book against Aristotle is in essential agreement with Vives, Ramus, and Bruno, but it contained little or nothing new. The second book, a review of Aristotle's logic, does not materially differ from the work of Ramus.

He visited Holland where he wrote an examination of the mystical philosophy of Robert Fleed, also an essay on the transit of Mercury. He published his objections to the fundamental propositions of Descartes, in which he shows his acceptance of the empirical philosophy, the principle of which is: "There is nothing in the intellect which has not been in the senses."

He was more in harmony with Epicurus than with any other ancient philosopher, and published a work on the system of Epicurus styled *Syntagma Philosophiae Epicuri*, which had considerable influence on the thinking of the time.

The most important of Gassendi's works, the *Syntagma Philosophicum*, is an eclectic conglomerate of irreconcilable dogmas from the empirical and rational schools of thought. It is divided into logic, physics, and ethics.

The logic, besides a brief history of the science, contains the theory of right apprehension, the theory of right judgment, the theory of right inference, and the theory of right method. While holding that the evidence of the senses is the only convincing evidence, yet he inconsistently maintains that the evidence of reason is absolutely satisfactory. The senses give us knowledge of individual things, and yet only the qualities of things; that we reach the idea of thing or substance by induction; and that induction rests on a general proposition not proved by induction.

The second part of the *syntagma*, the physics, though a work of merit, is not altogether self-consistent. He approves the Epicurean physics, yet holds that the soul is immaterial, free and immortal.

In the third part, the ethics, he maintains that happiness, which he considers to be the harmony of the soul and body, is the aim of life, and that if it is not attainable in this life, it may be in the life to come.

Gassendi, though possessing great critical ability, had not the constructive talent of a system maker. As an empirical philosopher, he is to be classed with Hobbes.

CHAPTER XVII

Modern Philosophy—Metaphysical

1. *Spinoza* (1632-1677). Baruch Spinoza, as he was named by his parents, or Benedictus Spinoza, as he called himself, was born at Amsterdam, of Jewish parents, who had fled from Portugal to escape persecution.

Being a bright boy, his education was entrusted to the chief Rabbi, Saul Levi Morteira, who was requested to train him for the Synagogue service. He made great progress in his studies, and soon began to ask questions which troubled his teacher to answer. He was expected to accept, on authority, the doctrines taught him; but this he refused to do, and demanded the reasons for the faith required of him.

Knowing his talents and dreading his influence, the rulers of the Synagogue offered him a pension of a thousand florins, if he would conform to their order and assist in their ceremonies; but this he indignantly refused to do, regarding the offered pension as a bribe. He was accordingly excommunicated, and an attempt was even made against his life by an assassin, who aimed at him a deadly blow with a gleaming dagger, as he was returning home from the theater.

Spinoza learned Latin and acquired a taste for Natural Science from a free-thinking physician, Dr. Van den Ende. His philosophy he learned chiefly from Descartes, but he was also influenced by Maimonides, Hobbes and Bruno, and was affected, to some extent, by the scholastic philosophy, though as an original thinker, he cut loose from all predecessors.

According to a prudent Jewish custom, he had learned a trade, in his case, the polishing of glasses for optical instruments, and this gave him the means of support, with the assistance of friends, while he pursued his investigations.

After his reputation, as a thinker, had become established, he was offered the chair of philosophy at Heidelberg by Karl Ludwig, the Elector Palatine; but this flattering offer he

declined, though the position was a lucrative one; for he loved to be independent, and feared that he would not be free in his teaching, though this he was promised, and that it would not interfere with his own studies.

His principal works, written at the Hague, between the years 1660 and 1677, were entitled: *Renati Descartes principiorum philosophiae, Pars I et II, more geometrico demonstratae*; *Tractatus theologico-politicus*; and *Ethica more geometrico demonstrata*. The *Ethica* is his chief work, and on it his fame, as a philosopher, especially depends. He wrote several other works of less importance, and numerous letters. Some of these works were published after his death, under the supervision of his friend, Ludwig Meyer. One of his works, *Tractatus de Deo, homine, ejusque felicitate*, was unknown to the world until the year 1852.

Descartes postulated two substances, matter, or extension, and mind, or thought, and supposed them so radically distinct that neither could act on the other. Their apparent interaction, which to Descartes was inexplicable, was accounted for by Geulinx and Malebranche by the hypothesis of *occasionalism*, or the intervention of God, who on the occasion of the presence of an object, excited a sensation to awaken attention, and presented the idea of the object.

Spinoza went back of the two substances, extension and thought, postulated by Descartes, and considered them *attributes* of one substance, the sole fundamental reality, which he called *deus sive natura*, *God or Nature*, infinite, absolute, self-existing by the necessity of its own nature. Extension and thought, the two known attributes of God, were the two forms expressive of his essence. Finite objects with their movements and interactions, also special thoughts, or mental acts, he called *modes*, respectively of extension and thought.

Causal relations apparently exist between the objects of one series, whether matter or mind, with those of the other; but this correspondence between the two series, Spinoza explained by going back to God, as the sole substance, whose acts have two phases, extension and thought, which always accompany each other, being, in fact, the same thing or act of God, differing only phenomenally, so that the order and connection of ideas is the same as the order and connection of things.

At this point, an interesting question arises: Did Spinoza regard extension and thought, as having to the human mind, an objective existence in God, or did he regard them simply as conceptions the human mind made in its endeavor to grasp reality? This question has been the occasion of some dissension. Kuno Fischer, and some others, held that Spinoza meant by attributes the real properties or essences which the one substance, God or Nature, possesses, apart from the observer. On the other hand, Hegel and Erdmann understood Spinoza to mean that these attributes were to be taken in the subjective sense, as the way in which the human mind conceives God; that substance itself is neither extended nor cognitive, but merely appears so to the understanding as the modes of its cognitions.

No doubt Spinoza held that the human mind conceived the infinite sole substance under the forms of extension and thought, though not as wholly subjective. He says, definition IV: "By attribute I understand that which the intellect perceives concerning substance, as constituting its essence." He also says, Book II, proposition 7: "The order and connection of ideas are the same as the order and connection of things." Hence every relation of true subjective thought corresponds to a relation in objective existence, and this correspondence constitutes its truth.

Finite things are the modes of the attributes, extension and thought of the infinite substance; that is, they are variable manifestations of God. They are nothing of themselves, since nothing exists out of God, and if God should withdraw from them his support, they would fall into non-existence.

The modes of extension are finite bodies with their magnitude and form, motion and rest, and their interactions. The modes of consciousness are the special cognitions, feelings, and volitions, with all their relations. These modes, whether of extension or of consciousness, are all transitory.

God, or the infinite substance, Spinoza called *natura naturans*; but the sum of the manifested modes, he called *natura naturata*. *Natura naturans* is God acting, or God manifesting his infinite perfections and omnipotent energy; *natura naturata* includes all the variable manifestations of God in nature and in the world of mankind. The modes,

whether modifications of extension or of consciousness, run out into infinite series of things connected by the law of cause and effect.

Spinoza has been accused of Atheism, but this accusation is evidently false. He was no atheist, but he was a pantheist. Everything phenomenal is the manifestation of God, the *causa causans*. Spinoza defined substance, attribute, mode, and God, thus: Substance is that which is in itself, and is conceived through itself; that is, the conception of which does not need the conception of another thing from which it must be formed. Attribute is that which the intellect perceives of substance, as if constituting its essence. Mode is the affections of substance, or that which is in another thing, through which also it is conceived. God is Being absolutely infinite, that is to say, substance consisting of infinite attributes, each one of which expresses eternal and infinite essence.

Let us examine the pantheism of Spinoza: He held that all finite things are only modes of the two attributes of God—extension and thought, thus giving to attributes a higher dignity than to modes. God is the general essence of all finite things; he exists in them, or is manifested in the sum of these things; and conversely, all finite things exist only in God, their essence and source; hence the significance of Spinoza's expression, *Deus sive Natura*. God is the sum of all his attributes, that is *Deus = omnia ejus attributa*; or to be more explicit, God is the sum of all his attributes with all their modes.

Substance, however, is to be distinguished from its attributes. Is body extension? It has extension; a body is extended, else it would not be body. But is the body the space it occupies? Move the body, the space it occupied remains. Is the ego identical with its thought? It may cease to think, and begin to feel. Is the ego identical with its feeling? It may cease to feel and begin to will. Is the ego identical with its willing? To these questions, we must answer no. But may not the ego be identical with the sum of these phenomena? It may, for all we know to the contrary, be sometimes quiescent, as in dreamless sleep. But again, may not the ego = intellect + sensibility + will? No. The ego has intellect, and sensibility and will, and as a substance, it must be distinguished from these attributes; or

to employ Spinoza's terms, as an attribute, called consciousness, it is to be distinguished from its modes, or its special thoughts, feelings, or volitions. The ego has the power to think, feel or will.

The application to God is evident. He is not to be identified with extension, though he can manifest his energy at any point in infinite space; he is not to be identified with thought, though he is an infinite thinker. If God is not to be identified with the attributes, extension and thought, much less is he to be identified with what is inferior to these attributes—their modes, the infinitely various forms and movements of bodies with their interactions, or with the countless number and innumerable variety of thoughts, feelings and volitions, with all their possible relations. A finite body, or a single state of consciousness, is a finite mode; but all bodies and minds, with their infinitude of relations, constitute an infinite mode.

According to Descartes, Geulincx and Malebranche, God is the free Creator of all things; according to Spinoza he is the essence which necessarily manifested itself as the sum of the facts of nature, or God is the essence and manifestation of Nature, and every fact of matter or spirit is a mode of one of his attributes—extension or consciousness.

Constructing his work, *more geometrico*, Spinoza begins with definitions and axioms; he enunciates theorems, giving their demonstrations; he then deduces corollaries, and appends scholiums, by way of affording additional light, or of avoiding misapprehension, or obviating objections.

Spinoza says: "Self-cause is that whose nature involves existence; or that whose nature can not be conceived as not existing." Self-cause either existed before it caused itself or it did not exist. If it existed before it caused itself, it would not need to cause itself; if it had no existence before it caused itself, it could not cause itself. Spinoza probably meant by *causa sui*, or cause of itself, *necessary existence*, which implies eternal existence which is not caused at all, such as the geometric forms in space; also space itself and time itself.

Spinoza calls the following an axiom: "The knowledge of an effect depends upon and involves the knowledge of its cause." This is true if knowledge signifies *complete under-*

God is thought
 God is extension
 since every attribute displays its whole of God

standing; but we know many effects, as facts, without knowing their causes; we know that any effect has *a* cause without knowing *the* cause; yet it is true that the knowledge of the relations of an effect involves the knowledge of its cause.

Spinoza also gives, as an axiom: "A true idea must agree with that of which it is an idea." This is an axiom, if we first give the definition: A true idea is an idea which agrees with that of which it is an idea; for then to be a true idea, it must agree with that of which it is an idea.

Spinoza says: "Eternity is existence itself, so far as it is conceived necessarily to follow from the definition of an eternal thing." Eternity is the infinite duration in which an eternal thing exists. It would still be infinite duration, or infinite time, if the eternal thing did not exist.

"*Proposition I. Substance is, by nature, prior to its affections.*" This follows from the definitions of substance and mode." In the logical order of dependence this is true; that is, substance is the condition of its attributes, and hence of its modes, which are special states, or modifications, that is, affections, of its attributes; but in the order of knowledge, we know modes, or affections, and hence attributes, first, and that by experience; and knowing attributes, reason apprehends substance as their ground, or source, as that without which the attributes would be impossible. In the order of existence, however, neither can be prior to the other; for a substance must have attributes of some kind, otherwise it would be nothing; if it exists, it must exist in some state or condition, that is, in some mode or modification of its attributes, otherwise it could not exist at all.

"*Proposition VII. It pertains to the nature of substance to exist.*" There is nothing by which a substance can be produced. It will, therefore, be the cause of itself; that is to say, its essence necessarily involves existence, or in other words, it pertains to its nature to exist."

The essence, if it be given, of course, involves the existence of the substance, as its condition or logical antecedent; likewise the substance, if given, involves its essence as its logical consequent; but the existence of essence, by itself, as attribute, is not known rationally, but empirically, as a fact which might not have been. Grant essence, then substance is its necessary antecedent, not in time, but as its logical condition;

grant substance, then essence is its logical consequent; but neither substance nor essence is known by reason as absolutely necessary, and so far as we know, neither might have been. The universe being given, God is conditionally necessary as its explanation; he may be absolutely necessary, for all we know to the contrary; but of the absolute necessity of God, reason does not inform us.

“Proposition XI. God, or substance, consisting of infinite attributes, each one of which expresses eternal and infinite essence, necessarily exists. If this be denied, conceive, if it be possible, that God does not exist. Then it follows that his essence does not involve existence; but this is absurd. Therefore God necessarily exists.”

If God did not exist, he would have no essence; that is, there would be no essence from which to infer his existence, which is not the absurdity, as Spinoza supposes of admitting essence and denying substance. We do not even know God's essence as a first fact. We know the universe, and hence infer the First Cause; and this first cause must be adequate to the production of the universe; that is, the first cause must be endowed with power and wisdom sufficient for its production.

In Part II, Propositions I and II, Spinoza declares: “Thought is an attribute of God, or God is a thinking being. Existence is an attribute of God, or God is an extended being.”

Then when as in Proposition XI, Spinoza speaks of the infinite attributes of God, he means his thought is infinite and his extension is infinite. Thought and extension are the known attributes of God; but if he has other attributes, and he may have, for all we know, an infinite number of attributes, they are all infinite.

In making extension an attribute of God, Spinoza did not mean extension itself, abstractly considered as pure space, but the infinite extension of the substance of God. Finite bodies are modes of the infinitely extended substance. In making thought an attribute of God, he considered individual thoughts, as those of men, to be modes of the thought of God.

By the *power* of God, Spinoza understands the energizing of the active essence of God, *natura naturans*. The modes or manifestations of God are *natura naturata*.

The only idea of space found in Spinoza's system is that of substance infinitely extended; but reason apprehends space as infinite extension itself, the room, without limit, for body and motion, and for the universe itself, but which would exist were there no body, no motion, no universe.

The universe being given, God, the First Cause, must be, whether regarded as transient or immanent, and as the first cause, he must be eternal, otherwise there never would have been anything, save time and space.

In the appendix to Part I, Spinoza denies all purpose, or final cause, with respect to God, holding that men believe that God acts in view of ends, because they themselves are conscious of thus acting. He holds that the thoughts of God are totally unlike those of men except in name. Then why call them thoughts, and what meaning can we attach to the expression, *the thought of God*?

God, therefore, according to Spinoza, is a necessary substance, infinite in extent and eternal in duration, free from constraint or restraint, by anything external, as there is nothing external, as the things called external are the modes of his own being, and acting, without purpose, according to the necessity of his own nature. Such a being might excite admiration, but could it inspire love? An infinite machine running, as a perpetual motion, by the necessity of its own mechanism, would be an infinite wonder, but is as impossible as the perpetual motion contrived by a human crank. Not a machine, but the living God, is running the universe.

We give, as a specimen of Spinoza's method of reasoning, "*Proposition XL. If we imagine that we are hated by another, without having given him a cause for it, we shall hate him in return.*"

Demonstration. If we imagine that another person is affected with hatred, on that account we shall also be affected with it; that is to say, we shall be affected with sorrow, accompanied with the idea of an external cause. But, by hypothesis, we imagine no cause for this sorrow excepting the person himself who hates us, and therefore, because we imagine ourselves hated by another, we shall be affected with sorrow, accompanied with the idea of him who hates us; that is to say, we shall hate him."

Suppose one had reached that high state of grace of loving his enemies would he hate another, who he imagined hated him?

A critical examination of Spinoza's system is a good discipline for the mind, and Spinoza has displayed a constructive intellect of a very high order. Only recently, many great thinkers have gone back to Spinoza's system, as the only true one.

2. *Leibniz* (1646-1716). Leibniz was born at Leipsic where his father was professor of Ethics at the university. His mother was the daughter of a distinguished jurist, and thus the young Leibniz was favored by heredity. His father died when his son was six years of age, and so his education was the care of his excellent mother. Leibniz enjoyed the aid of the superior library left by his father, and all the advantages of a University education of which he availed himself to the utmost. He studied for the doctor's degree which, for some misunderstanding, was refused him at Leipsic, but was conferred on him by the University at Altdorf. He was an adept in languages, and in the scholastic philosophy; and visiting Paris, he studied the higher mathematics with the celebrated Huygens. He also visited England, and became acquainted with many of the distinguished scholars of that country.

His mind was wonderful in the universality of its grasp, exceeding, in this respect, that of any other mind since Aristotle. He was, at once, a philologist, a historian, a jurist, a physicist, a mathematician, a philosopher; and in all these respects he was an adept and made important investigations, and adorned whatever he touched. Equally with Sir Isaac Newton, he was the discoverer of the Differential Calculus, and devised a notation more flexible than that of Newton's, even the one used at the present day.

He was the friend and counsellor of Kings, and was honored by the great. Financially he was well to do, so that his career may well be the envy of many a poverty-stricken man of letters.

So numerous were the subjects that engaged his attention, so wide the field of his investigations, that time failed him for writing many exhaustive treatises; but perhaps the work

nearest his heart was his *Theodicy*, or the vindication of the ways of God to man; his heart also was set on uniting the discordant churches of divided Christendom.

The philosophy of Leibniz, though influenced, more or less, by the systems of the past, especially by those of Plato and Aristotle, Descartes and Spinoza, was strikingly original and profound. The ultimate reality is God, a monad, the creation of an infinitude of monads. #

The created monads of Leibniz are to be distinguished from the atoms of Democritus, which were regarded as infinitesimal solids, inert and without qualitative differences, while the essential monads were conceived to be metaphysical points, infinite in number—little worlds of activity and intelligence, each thoroughly individual, differing from all the others, the whole varying without break, according to the law of continuity, from the lowest to the highest, each picturing the universe, according to its degree of intelligence, not by passive impressions, but by active reflection and representation. Above these is God, the creator of all, the monad of monads, *purus actus*, the absolute energy, the infinite intelligence.

There is no gap in the continuity of the intelligence and activity of the monads, from the lowest to the highest of the created monads, and though, according to Leibniz's principle of the *identity of indiscernibles*, the difference between those nearest alike may be indiscernible, yet each one forever maintains its identical individuality. The only break in the law of continuity is between the highest created monad and God, the absolute monad, the monad of monads, the infinite intelligence, the pure activity.

The monads of Leibniz differ from the one substance of Spinoza which, as pure being, excludes all positive determinations save extension and thought, while the monads, as active energy, constitute the essence of substance, making all reality dynamic.

Instead, therefore, of the one substance, there is an infinite number of individual monads, graded according to the law of continuity, each forever maintaining its own identity; and the sum total of these monads constitutes the universe. Each living being is a ruling monad environed by a multitude of subordinate monads acting together according to the law of pre-established harmony.

The *world of matter* is the imperfect conception which individual minds have of the universe of monads, the conceptions becoming more clear and ideal as the minds advance in degree of intelligence.

The hypothesis of *pre-established harmony* naturally followed from that of monads. In the hierarchy of monads, the higher, or more active, give law to the lower or more passive or imperfectly active, as in the soul and body in their corresponding states. The lower monads representing the universe in a confused way, may be regarded as material, so far as passive; but the higher monads, actively representing the universe in a clear way, are to be regarded as spirits.

The doctrine of pre-established harmony is, therefore, opposed to that of Descartes in regard to matter and mind as two substances so unlike that neither can act on the other, leading to the theory of occasionalism, or miraculous intervention, proposed by Geulincx and Malebranche.

Leibniz did not hold that there was a world of matter distinct from the universe of monads, the two worlds so arranged, by a pre-established law, as to run in harmony, but that the monads, according to their degree of perfection, represented by their intelligence, the facts of the other monads, the law governing the lower corresponding with the representations of the higher. God, by his continued action, moved the lower monads, or world of matter, and incited corresponding activities in the higher monads, or world of mind.

Hence, each monad represented correctly, yet not through sensations caused by passive impressions, but by the law of its own activity, the facts relating to the lower monads, but only imperfectly, so far as it is material or passive, the facts pertaining to the higher. God, the *purus actus*, represents, in perfection, the state of the entire universe of monads. The monads all represent the same universe, but with different degrees of perfection, according to their activity, the monads of the inorganic world representing, as in a confused dream, the representations rising in degree of distinctness, through the vegetable and animal kingdoms, through man, and higher beings, up to God whose representations are perfect, for he alone, as the absolute monad, as *purus actus*, gives law to the whole infinite series of activities.

The combination of the passive and the active principles of the material and spiritual in the monads is somewhat analagous to the one substance, *Deus sive natura* of Spinoza, with its two properties of extension and thought; but with Leibniz, the passive or material principle is wanting in God, the absolute monad, who is wholly spirit, or pure activity, the creator of nature. All the lower monads, whose sum constitutes nature, combining both passive and active elements, the passive or material predominating in the lower, the active or spiritual in the higher, are the creatures of God, subject to order, and mutually adjusted according to the law of pre-established harmony.

The *logic* of Leibniz is based on two fundamental principles—the principle of *contradiction* and that of *sufficient reason*. The principle of contradiction may be thus stated: That which is self-contradictory or which contradicts an established truth is false, and if false its contradictory is true. The principle may otherwise be stated thus: All truths exist in harmony. The principle is employed in Geometry in the indirect demonstrations, called also the *reductio ad absurdum*. The principle or sufficient reason may be thus expressed: To established contingent truths, that is, the truth of facts, a sufficient reason must be found.

The *Theodicy* of Leibniz, an attempt to vindicate the government of God, was perhaps of all his works the one nearest his heart. The question how can God, the infinitely good and holy Creator and governor of the world, permit evil in the universe which he has created and governs? What is the origin of sin, and what is its signification? These questions have perplexed many thoughtful minds. The solution of Leibniz is optimistic, and is essentially to this effect. *That the existing universe is the best possible*; for God, infinite in power, wisdom and goodness, would create the best possible world. But what then can be said of the evil so abounding in the world? Leibniz declares that ~~the evil is rather apparent than real~~; but all partial evil is universal good, and whatever is, is right. All things are of necessity. Every event takes place according to pre-established law. ~~Even events apparently contingent are the necessary result of remote and intervening causes, and could not be different from what they are found to be.~~ This view is virtually the

denial of sin, or moral evil. A being acting under necessity cannot be guilty of moral wrong, and a sense of guilt, or remorse of conscience, is a feeling of blame where blame does not exist. This is certainly not existing harmony. The fact is, man is free; and though a person causes his acts, which, as caused, are not free, yet the person is free to cause or not to cause certain acts, and as free, it is possible for him to do wrong, in which case, conscience rightly asserts his guilt; he is guilty for doing wrong, when he was free to do right. The fact of remorse is in harmony with the fact of guilt which implies freedom, but is inconsistent with the doctrine of necessity. Man is not a machine run by forces over which he has no control, according to pre-established laws, but he is a free moral being. A universe of moral beings is more worthy of God than a universe of machines, however perfectly the machines work by necessity under the control of forces running them according to invariable law; yet in a moral universe sin is possible, and is actual in the present world as found by sad experience. Leibniz, however, held that the necessity of a person's conduct was subjective, due to his nature and not to an external cause.

The Theodicy of Leibniz was a polemic directed especially against the skepticism of Bayle, who maintained that reason and theology were in irreconcilable conflict, yet as he ironically declared, both are to be accepted. Bayle held that the presence of evil in the world is inconsistent with the existence of God as infinitely powerful and holy. Bayle's argument is essentially the following: God is neither able nor willing to prevent evil, or he is able but not willing, or he is willing but not able, or is both able and willing. The supposition that God is both able and willing to prevent evil is the only one consistent with the being of God, as omnipotent and holy; but evil does exist; therefore God is not both able and willing to prevent it, otherwise it would not exist. If he is willing to prevent evil, but not able, though he may be holy, he is not omnipotent; if he is able but not willing though he may be omnipotent, he is not holy; if he is neither able nor willing, he is neither omnipotent nor holy. In any case, the fact of evil conflicts with the existence of God as omnipotent and holy; and hence the affirmations of reason are contrary to theological conceptions; that is, there is no God.

Leibniz's Doctrine of optimism, virtually denying the existence of evil, or making it only apparent, or necessary to the good of the universe, is not a satisfactory reply to Bayle's argument. If man acts under necessity, he is not morally blame-worthy; but his conscience convicts him of sin, and his reason justifies his conscience. Sin or moral evil is, therefore, a fact which cannot be gainsaid, and of this fact, mendacity, dishonesty, cruelty, and every species of crime and immorality are crying witnesses whose voices cannot be silenced.

The theory of monads and of pre-established harmony, together with his desire to vindicate the character of God, compelled Leibniz to minimize evil, or virtually to deny it altogether, and to devise the theory optimism, that the present universe is the best possible. Granting the existing of evil, the hypothesis of a universe of monads, whose activities, whether thoughts, feelings, volitions, or external conduct, are all necessitated according to pre-established law, throws the responsibility of evil on God himself, who ordained the law, and renders the vindication of his character altogether impossible. But a universe of free moral agents with power to do right and not under compulsion to do wrong, so superior to a universe of machines, vindicates the character of God, in the eye of reason, from all responsibility for the actuality of evil, throwing on him only the responsibility for its possibility. For the sake of the multitudes of high and holy beings, the possibility of evil, or the risk of its actuality, was admitted, and the responsibility of sin is thrown, where it belongs, upon the sinner, who had power to do right, and was not compelled to do wrong. This view both justifies the ways of God, and accords with the facts of human nature.

The universe, according to Leibniz, was created and organized so as to embody the divine plan, all the monads acting in conformity to law, accomplish their pre-ordained work without subsequent intervention on the part of God. Every emergency was foreseen and provided for in the original plan, the foreknowledge of God guiding in the adjustment of forces working according to law pre-ordained by infinite wisdom, rendered further intervention of providence entirely unnecessary, thus displaying in the highest degree, the perfect wisdom of the Divine Creator. This view may

suffice for a mechanical universe; but it is not unreasonable to suppose that a world of free beings would better accomplish the divine purpose by the kind guidance of the Moral Governor. The continual moral government of God accords with the fact of moral law and true religion, while the scheme of necessity conflicts with rational views of morality, religion and responsibility.

Leibniz applied his own philosophical principles to a criticism of the system of Locke, especially in regard to the origin of knowledge, and to his polemic against the theory of innate ideas.

Locke taught that all our knowledge comes through sensation and reflection, and consequently that we have no innate ideas. He accepted the statement: *Nihil est, in intellectu quod non fuerit in sensu*. This statement Leibniz also accepted, with this addition: *nisi ipse intellectus*.

Leibniz held that there are ideas innate, or originated by the mind itself. Locke held that if the mind has innate ideas, it must be conscious of them; for to deny consciousness of them is virtually to affirm that they are not in the mind, and hence not innate. As a matter of fact, however, neither children nor savages are conscious of certain principles called innate. What do they know about axioms, or the principle of causality, or that of contradiction? Locke admits that the mind is capable of knowing first principles when presented, or of understanding demonstrable truth when proved, but not before. He admits that the mind has innate powers, or powers born with us.

What is really born with us is *innate powers*; and in regard to this, the two philosophers were perhaps in agreement. The addition *nisi ipse intellectus*, made by Leibniz, is not an *idea*, innate or produced by the intellect, but the capability of the intellect to produce the idea; yet Leibniz was correct in his contention that fundamental principles are supplied by reason, and not acquired through the senses, though they may be called out to give the conditions of knowledge thus acquired, since rational truth is the possibility of contingent facts.

Leibniz distinguished space, from extension, and time from duration, maintaining that extension is the largeness of an object, and is measured by the space it occupies, and

that duration is the persistence of an event, and is measured by the time it continues. But space is the room giving the possibility of the extension or motion of objects, and time the duration giving the possibility of the continuance or succession of events. As conditions, that is to say, of bodies and their motion, and of events and their succession, space and time are absolute and eternal realities.

Leibniz, however, calls space and time *innate ideas*; but as the earth existed and revolved around the sun, and the geologic periods continued and succeeded one another long before the human race existed upon the earth, we must distinguish between space and time themselves and our ideas of them.

The writings of Leibniz may be briefly mentioned, as *Letters*, of which there is a multiplicity on almost every conceivable variety of subjects; *Essais de Théodicée*; *Meditationes*; *Nouveaux Essais*; *La monadologie*; *Principes de la nature et de la grace*; and *Mathematical correspondence*.

Leibniz was, without doubt, the most versatile genius that has appeared in the world since Aristotle.

3. *Wolff* (1679-1754). Christian Wolff was born at Breslau and died at Halle, where he was professor of mathematics, though he lectured chiefly on philosophy.

In his philosophic opinions, he was influenced by both Descartes and Spinoza but especially by Leibniz. He culled the thoughts of Leibniz from his numerous writings, and published them in a systematic form so that they could be used by students of philosophy, and in fact they became the prevailing standards in the German universities, till after the time of Kant.

Leibniz had established two principles—the principle of *identity*, and that of *sufficient reason*. Wolff attempted to deduce the principle of sufficient reason from that of identity, or of *contradiction*, as it may be called, and thus place all philosophy and even theology, on a rational basis. He held that God could, by a miraculous intervention, change any fact, but not a necessary principle, as the ratio of the circumference of a circle to its diameter. In Ethics, both Leibniz and Wolff taught the wholesome doctrine of a *progressive perfectionism*.

CHAPTER XVIII

Modern Philosophy—English

1. *Cudworth* (1617-1688). A reaction against the extreme sensationalism of Hobbes was inevitable, and the representatives of this reaction were Cudworth, More and Cumberland.

Ralph Cudworth was carefully instructed in his preparatory studies by his step-father, Dr. Stoughton, and entered as a pensioner in Emmanuel College, Cambridge, of which his father had been a fellow. After receiving his M. A. degree he was elected a fellow, and became a tutor, in which capacity he distinguished himself, and was accounted one of the most learned men of the University.

He received the degree B. D. and was chosen to the rectorate of several churches, and preached before the House of Commons. He was elected professor of Hebrew, and shortly after was appointed to the mastership of Christ's College.

He was a voluminous writer, the author of the following works: *True Nature of the Lord's Supper*; *Union of Christ and the Church*; *True Intellectual System of the Universe*, a ponderous work in three parts—*On Atheism*, on *Eternal Immutable Morality*, and a *Discourse on Liberty and Necessity*. A fourth part, on *Free Will*, was left in Ms., but published in 1838, and other Mss. were left which have not been published.

The part of the "Intellectual System," against Atheism, deals heavy blows. His first proof of the existence of God is, with some modification, that of Anselm and Descartes, founded on the idea of an absolutely perfect being, showing that this idea involves no contradiction and is in accord with reason. Instead, however, of inferring existence from the idea of perfection, he infers in his second proof, the existence of an eternal and absolute or perfect being from the fact of the existence of the universe.

In the part on "*Liberty and Necessity*," Cudworth mentions three kinds of fatalism—the first *materialistic*, which suppresses not only the idea of liberty, but also the idea of

God and spirituality, and reduces all changes to mechanical action; the second is a *Theological fatalism*, which makes good and evil, right and wrong depend on the will of God; the third is a *Stoical necessity*, which affirms that all that happens is determined by unavoidable necessity.

To the first of these forms of fatalism, Cudworth opposes the existence of God and a spiritual world; to the second, the immutable distinctions between right and wrong; to the third, the freedom and responsibility of man. He elaborates his arguments, at great length in support of his views.

Knowledge, according to Cudworth, does not begin with the individual object, but with the universal, and in this he agrees with Plato and Leibniz, that the individual is known, by bringing it under the universal; he disagrees with Bacon, that the universal is collected from a multitude of individuals. He held that these universals underlying all knowledge, have existed eternally in the Divine mind.

The treatise on "*Eternal and Immutable Morality*," opposes the second form of fatalism that moral good or evil is such by the arbitrary will of God. We often know, by our own reason, that a certain act is right or wrong; yet even in case we can not know this by our own reason, but only from the revelation of the will of God, we still believe that an act is right, not because God wills it, but that He wills it because it is right; and knowing his will, we know that the act is right. God's will is not arbitrary, but is founded upon his wisdom.

An act morally indifferent, if enjoined by law, civil or divine, becomes obligatory, because not to obey would introduce diversity of practice, and involve discord in society, which is an evil, and therefore to obey is right. Consequences whether good or bad, determine the quality of conduct, whether right or wrong, and the character of the consequences is apprehended by reason, human or Divine.

2. *More* (1614-1687). Henry More took his preparatory course at Eton, and his University course at Christ's College, Cambridge. His parents were rigid Calvinists, but their son said he "could never swallow that hard doctrine."

He was a Platonist in philosophy and was especially enchanted with Neo-Platonism, and consequently somewhat of a mystic. He was a prolific writer, and threw into his productions the charms of a poetic imagination.

His *Opera Theologica* and *Opera Philosophica* contain his theological and philosophical speculations. He also published a collection of philosophical poems. In his *Manual of Metaphysics*, he discusses the views of Jacob Bøehme and Spinoza; but his *Divine Dialogues* mark the culmination of his intellectual efforts.

In his work on Ethics called "*Enchiridion Ethicum*" More answers the question, why should one conform to an ethical principle when he believes that in so doing he acts contrary to his own interest? by saying that the obligation to do right is apprehended by reason, and that the sweetness and flavor of right conduct and of the resulting good are appreciated by the *boniform faculty*, that is, by conscience; that in this sweetness is found the motive to virtuous conduct; and that Ethics is the art of living happily, since true happiness consists in the satisfaction from the consciousness of virtue. Hence to do right is to act in accordance with our highest interests. He also adds some practical principles: things differ in quality as well as in quantity and duration. Future good or evil, if certain, or even probable, is to be regarded as well as present good or evil. The amount of good varies as the number receiving the same benefit. Hobbes and More agree in making happiness the aim of virtue; but right conduct, according to Hobbes is known through law, but according to More, by reason. Cudworth did not make happiness the aim of right conduct, but the fulfillment of the obligation to conform to the immutable principles of reason; but evidently to satisfy the claims of reason gives the very highest and purest enjoyment, and not to do so would disquiet our conscience, and render us dissatisfied with ourselves.

3. *Cumberland* (1632-1718). Richard Cumberland was educated at St. Paul's school and at Magdalene College, Cambridge, where he received his degrees and obtained a fellowship.

He studied medicine, but did not actively engage in its practice. He turned his attention to Theology and Philosophy, and to some extent to Science and Philology.

He had several influential friends, and to them, in connection with his industry, he owed his success in life. His first preferment was the rectory of Brampton, and he was also appointed one of the twelve preachers to the University.

While zealously engaged in performing the duties of his office, he still found time for the abstruse studies which were his delight. He was advanced to a more important position, the rectory of Allhollows, and into this work he entered with his usual energy. He gave one lecture each week, besides preaching two sermons, and still found time to pursue his favorite studies of Theology and Philosophy.

At the age of forty, he published his earliest and greatest work, entitled *De Legibus Naturae*. The merit of this work is found in the matter rather than in its style, which is prolix and destitute of strength and perspicuity.

One day entering into a coffee-house to read the papers, as was his custom, he was greatly surprised to see the item: "The King has nominated Dr. Cumberland to the Bishopric of Peterborough." He accepted this appointment, with some hesitation, and applied himself to the duties of this new office with his usual zeal.

He prepared several other works, besides that on the laws of nature, among which was one on *Jewish Weights and Measures*, and he undertook the study of the Coptic language when eighty-three years of age.

Cumberland's greatest work, however, was *De Legibus Naturae*, in which are found his philosophical theories. He says: "The laws of nature are immutably true propositions, regulative of voluntary actions as to the choice of good and the avoidance of evil, and which carry with them an obligation to outward acts of obedience, even apart from civil laws, and from any considerations of compact constituting governments."

The above definition, by its prolixity and range, shows his defects, both in style and thought. A proposition is a statement in some form of language. How then can a law of nature be a proposition? Again, his definition can apply only to a moral law. Cumberland said it would be accepted by all parties, forgetting that it is the very thing that would not be accepted by Hobbes, against whom he was contending.

In the discovery of the laws of nature, Cumberland does not have recourse to innate ideas, or employ the intuitions of reason, but he rises by induction from nature to nature's God, and thence descends to universal laws. All the laws of morals, Cumberland reduces to the law of benevolence,

which he thus states: "The common good is the supreme law," and again: "The greatest possible benevolence of every rational agent towards all the rest constitutes the happiest state of each and all so far as depends on their own power, and is necessarily required for their happiness." Again: "No action can be called morally good which does not, in its own nature, contribute to the happiness of men." These statements are propositions expressing moral law, and do not include physical laws. Cumberland, however, did well to give benevolence its high rank among the virtues. An act which contributes to the comfort of a brute is a benevolent act, though it has no reference to the happiness of men, except to the pleasure of the doer. The last quotation from Cumberland shows that he was not a critical thinker, and his defects in style and thought hindered the general usefulness of his work.

4. *Locke* (1623-1704). John Locke enjoyed the advantages of a good education, afforded by the wisdom of his father, a liberal Puritan, and a lawyer of Pensford, Somerset county, England. His home training was thorough, and continued till he was fourteen years of age, when he was sent, for six years, to the Westminster School, which under Puritan control, was a center of political agitation. From Westminster he went to Oxford, and was placed in the charge of John Owen of Christ Church College.

Locke was not pleased with the intolerance and fanaticism he saw manifested at Oxford, and became a firm believer in religious liberty and freedom of thought, and these sentiments he maintained all his life. He received the bachelor's degree in 1656, and the master's degree in 1658. In 1660, he was made tutor, and lectured on Greek, Rhetoric and Philosophy.

Locke was acquainted with the writings of Descartes and Hobbes, and especially admired the clearness of the style of Descartes, though he differed from him on many points; but his general philosophical point of view, not the ethical or political, was more nearly in agreement with that of Hobbes.

The natural sciences, especially physics, chemistry and meteorology, engaged his attention. He studied medicine, and though he did not take the degree, nor engage systematically in the practice, he acquired some reputation for his

knowledge. As secretary of William Swan, minister to the court of Berlin, he spent a year in that city, and returning to Oxford, was introduced to Ashley Cooper, afterwards Earl of Shaftesbury, and gave him medical advice greatly to the benefit of his health, and they became fast friends for life. His relations with Shaftesbury brought him into contact with public men, and thus broadened his views of the world. He became acquainted with Lord Halifax, the Duke of Buckingham, the Earl of Northumberland, whom he accompanied to France. Having gone to Montpelier for his health, he made the acquaintance of Lord Herbert, Earl of Pembroke, and to him he afterwards dedicated his great work on *Human Understanding*.

The papers left by Locke, in his Oxford period, throw light on his mental development. They relate to the following subjects: *Roman Commonwealth, Sacerdotal Christianity, Infallibility in the Interpretation of Scripture, Utilitarian Ethics*.

Locke shared in the political fortunes of Shaftesbury and accompanied him to Holland, when he was forced to leave England. Influenced by the Court party, Charles II signed a warrant which struck Locke's name from the list of names of the members of the University of Oxford; but for this he was more than compensated by his gaining the friendship of William of Orange, whom he accompanied to England, which had chosen him and his wife, Mary, joint sovereigns of the realm.

Locke spent the last years of his life in the home of Sir Francis Masham at Oates, in the vicinity of London. Lady Masham, a highly gifted woman, was the daughter of Cudworth, the distinguished philosopher of Cambridge. Tenderly cared for by this kind family, the great philosopher quietly passed to his rest.

While at Oxford, Locke was in the habit of meeting with a few select friends for the purpose of discussing important subjects. He thus gives the origin of his greatest work: "Five or six friends meeting in my chamber, and discoursing on a subject very remote from this, found themselves quickly at a stand, by the difficulties that rose on every side. . . . It came into my thoughts that we took a wrong course; and that before we set ourselves upon inquiries of that nature it was necessary to examine our own abilities, and see what

objects our understandings were, or were not, fitted to deal with. . . . It was agreed that this should be our first inquiry. . . . When I put pen to paper, I thought all I should have to say on this matter would have been in one sheet of paper; but the farther I went, the larger prospect I had; new discoveries led me still on, and so it grew insensibly to the bulk it now appears in."

The writing continued, with many interruptions, for a period of twenty years, when the great work appeared with the title: *An Essay concerning Human Understanding*. The "Essay" consists of four books: In the first, Locke criticizes the doctrine of innate ideas; in the second, he attempts to show that all knowledge is gained from experience, through sensation and reflection; in the third, he treats of the bearing of language on thought, and considers the nature of generic concepts; in the fourth, he distinguishes between the different kinds of knowledge, and discusses the limits of knowledge. It is, however, probable that the fourth and second books were written first, and that the order was changed in the final make up of the treatise.

Locke says: "*First*, I shall inquire into the *original* of those *ideas*, or whatever else you please to call them, which a man observes and is conscious to himself he has in his mind, and the ways whereby the understanding comes to be furnished with them.

Secondly, I shall endeavor to show what knowledge the understanding hath by those ideas, and the certainty, evidence, and extent of it.

Thirdly, I shall make some inquiry into the nature of *faith* or *opinion*, . . . and shall have occasion to examine the reason and degrees of *assent*."

Locke means by the word *idea*, "whatsoever is the object of the understanding when a man thinks; . . . whatever is meant by *phantasm, notion, species*." Two things need to be considered: The nature of ideas, and their origin. It would seem to be necessary first to inquire into the nature of ideas, and then ascertain their origin, otherwise we should raise inquiries as to the origin of that of which we have no clear conception.

Locke, however, first inquires how ideas come into the mind. His contention is that there are no innate ideas, no

innate principles. In this Locke is certainly right; for neither ideas nor principles are born with us, and this Locke shows by abundant argument and illustrations. Though ideas are not innate, yet it is true that powers, susceptibilities, or faculties are innate, that they assert themselves under proper conditions, and this Locke did not deny. We have no innate ideas, but we have innate powers, though at first undeveloped.

Locke lays down the proposition that all our ideas come from sensation or reflection. "Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas; how comes it to be furnished? . . . To this I answer, in one word, from *experience*." This experience relates either to external objects or to the internal operations of our minds.

"First, Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, . . . and thus we come by those ideas we have of yellow, white, heat, cold, soft, hard, bitter, sweet. . . . This great source of most of the ideas we have, depending wholly upon the senses, . . . I call Sensation."

"Secondly, The other fountain from which experience furnisheth the understanding with ideas is the perception of the operations of our own mind. . . . and such are perception, thinking, doubting, believing, reasoning, knowing, willing. . . . This source of ideas every man has in himself, . . . and might properly enough be called internal sense. But as I call the other Sensation, so I call this Reflection."

As Locke lays down a thesis: *All ideas come from sensation or reflection*, which he then attempts to prove, his method is rather that of an *advocate* or *controversialist*, than that of an *investigator*. He thus ignores rational intuition, or reason, not reasoning. But Locke says: "He would be thought void of common sense, who, asked, on the one side, or on the other side, went to give a reason, *why it is impossible for the same thing to be and not to be*. It carries its own light and evidence with it, and needs no other proof: he that understands the terms assents to it for its own sake, or else nothing will be ever able to prevail with him to do it." Did Locke know that by sensation? Did he know it by reflection? He knew it by reason, or rational intuition, yet he ignored that method of knowledge.

Though the principle, "*It is impossible for the same thing to be and not to be,*" is not innate, yet the reason, which apprehends this impossibility, is innate, and the apprehension occurs as soon as the mind understands the significance of the proposition. Experience may tell us that this or that event has a cause, but not that every event must have a cause.

Locke's views in regard to *space* are not altogether consistent. He says: "We get the idea of space both from sight and touch." Can we see space? Can we touch it? We see bodies and touch them, but not space itself. A body is contained in space and moves in space; yet the body is not the space which contains it, and in which it moves. This Locke himself admits. He says: "I appeal to every man's own thought whether the idea of space be not as distinct from that of solidity, as it is from the idea of scarlet color.

. . . Motion is not space nor space motion; space can exist without motion; but motion can not be without space."

In fact, space is the necessary condition of body and of motion; it is that in which bodies are situated and motion takes place; it is the infinite room for the entire universe; it is that in which the sun and its attendant planets speed on their course; that in which the stars, with their accompanying worlds, pursue their ceaseless journeys. The annihilation of the universe would not be the annihilation of space. Ether, so far as we know, may fill all space, leaving no void, but ether is not the space it fills, and were there no ether, space would still remain. It is not the object of power, and it implies no limitation of God's power to say that, as necessary and eternal, it was not created, neither can it be destroyed; but our idea of space might be destroyed.

It implies no contradiction to suppose any body or all bodies non-existent; body is contingent, and the idea of body is gained by experience; but body being known, space is apprehended by reason as a necessary existence, not only necessary to the existence of body, but absolutely necessary. In the order of acquisition, the idea of body is chronologically the antecedent of the idea of space; but in the order of dependence, space is the logical antecedent of body, that is, if there were no space, there could be no body. We get the idea of body through the senses, but we do not get the idea of space

through any of the senses, nor by reflecting on the ideas we acquire through the senses, but we apprehend space by reason, as that without which body could not be, as the necessary condition of body. Locke's thesis *that all our ideas come from sensation or reflection* is therefore not true. The idea of space is, however, not innate, but reason itself is innate, and it apprehends space when the proper conditions are met, though not before.

Let a point move in a straight line, with the velocity of light, for a million years, and let this line revolve about its origin, in the same plane, it will generate an immense circle and let the generated circle revolve about any diameter, the immense sphere generated by the revolving circle is to the outlying space as one to infinity. Experience is no witness, the senses fail, even the imagination cannot picture the immensity, yet reason apprehends the sublime reality of the infinity of space.

In regard to *time* Locke says: "Men derive their ideas of duration from their reflection on their trains of ideas they observe succeed one another in their own understandings. The constant and regular succession of ideas is the measure and standard of all other succession." This is well enough; men get their notion of succession from their experience of phenomena appearing then disappearing, followed by other phenomena, and so on in continued series.

But Locke goes on to say: "Time is duration set out by measures. . . . This consideration of duration, as set out by certain periods, and marked by certain measures of epochs is that, I think, which we most properly call time."

The consideration of duration, as set out by certain periods, may give the idea of time, but is not time itself. Succession requires time, but is not time itself. The idea of time, however, is not innate, ready in the mind to account for succession, but time is apprehended by reason as the necessary condition of succession; it is that in which things persist and succession takes place. In the chronological order succession is experience before time is apprehended, and without this experience, there would be no call for the apprehension of time; but succession requires time for its possibility; but time being apprehended, it is known to be an eternal reality.

The function of reason, or rational intuition, is to give the fundamental conditions of phenomenal reality; but reason Locke ignored.

Locke identifies time with succession. Time, however, is the condition of succession; it is that without which succession could not take place; it is not cause, the dynamical condition of succession; but it is the blank continuance, the non-dynamical condition of succession, the room, to draw a figure of speech from space, in which succession takes place. A consciousness of succession is the condition of our apprehension of the reality of time, though time itself does not cease to be when we are asleep and are no longer conscious of succession. Time, not in its Theological acceptance, but in its Metaphysical, is infinite, and is identical with eternity.

Without the idea of succession, we never would have had that of time. In the order of acquisition, the idea of succession is before that of time, but in the logical order, the order of dependence, time itself is the antecedent of succession, and without time, succession would be impossible. In Locke's system, however, these obvious distinctions are confused.

The ideas of body, of succession, external or internal, of motion, and, in general, of the phenomenal, are acquired through the senses or by consciousness, but the ideas of space, or time, of the infinite, are apprehended by reason, whenever we have the ideas of the phenomenal, of the finite. The phenomenal, the finite, is known empirically, through the senses or by consciousness; but the necessary, the infinite, is apprehended rationally; yet the idea of the infinite is no less clear and positive than that of the finite. Obscure the infinite may be to the senses or to the imagination, but it is clear and positive to the reason.

Locke calls the idea of the infinite, negative. Of course, the infinite is the negative of the finite, and so is the finite the negative of the infinite; the ideas of the finite and infinite are equally negative, and also equally positive.

Locke says number affords the clearest idea of infinity; but every specified number is definite and finite, however great it may be. The succession of numbers, however far it may be carried, gives the indefinite, a much vaguer idea than that of the infinite.

This guy is a dunce!

As to *personal identity*, Locke begins well by saying: "We must consider what *person* stands for, which I think is a thinking intelligent being that has reason and reflection, and can consider itself as itself, the same thinking thing in different times and places, which it does only by that consciousness which is inseparable from thinking and, as it seems to me, essential to it. . . . For since consciousness always accompanies thinking, and it is that which makes every one to be what he calls *self*, and thereby distinguishes himself from all other thinking things; in this alone consists *personal identity*, that is, the sameness of a rational being; and as far as consciousness can be extended backwards to any past action or thought, so far reaches the identity of that *person*, it is the same *self* now it was then; and it is by the same *self* with this present one that now reflects on it that that action was done."

In saying: "In this (consciousness) alone consists personal identity and as far as this consciousness can be extended backwards to any past action or thought, so far reaches the identity of that *person*", Locke seems to identify the person with his consciousness, and assumes that consciousness can be extended backwards; but the fact is, personal identity is the essential sameness of the ego or self, and continues while the ego is unconscious in sleep, while consciousness is a phenomenon of the ego; nor can consciousness, which is a present psychical phenomenon, but not the ego itself, be extended backwards at all. Locke probably meant memory; but memory, though affording the evidence of personal identity, does not constitute it. If personal identity, the essential sameness of the ego, were not a fact, memory itself would be impossible; for a person losing his identity, and turning into another person, would, as this second person, have no knowledge of the experience of the first; but since he remembers his former experience, he must be the same person that had that experience, otherwise he could not remember it. Memory, though the proof of personal identity, is not personal identity itself. Consciousness, though not the ego, is the recognition of the activity of the ego.

In regard to *substance*, Locke says: "I confess there is another *idea*, which would be of general use for mankind to have, as it is of general talk, as if they had it, and that is the

idea of substance, which we neither have nor can have by sensation or reflection." If we neither have nor can have the idea of substance by sensation or by reflection, then it is plain, that, according to Locke's theory, we can not have the idea of substance at all, since he derives all our ideas through sensation or reflection.

The fact, however, that the word substance is in common use, is evidence that we attach some meaning to it, and what that meaning is may be inferred from the etymology of the word. Substance, from *sub* and *sto*, signifies an underlying support of attributes, qualities, activities, operations, accidents, such as form, hardness, elasticity, etc., of material bodies, known as external phenomenon by perception through the senses, or the source of cognitions, feeling, volitions, known as internal phenomena through consciousness. But attributes, qualities, activities, are not self-supporting; they are not attributes of *nothing*, but of something capable of supporting them; they require substance as their ground or source. Thus, *hardness* is the attribute of a solid body; so also *thinking* implies a *thinker*. A vacuum is not hard; neither can a vacuum think, nor feel, nor will. Thinking, as an act, is not the act of nothing, but of an actor capable of thinking.

Again we have, says Locke, "no clear ideas of substance in general." Of course not if we attempt to obtain this idea through sensation or reflection, neither of which can give us this idea. The idea of substance is rationally apprehended as the necessary condition or support of attributes; it is the fact of substance that is clear to the eye of reason, not its essence or the mystery of its existence.

Locke says: "Substance and attributes are of little use in philosophy;" but the fact is, the modes of acquiring a knowledge of attributes and of substance, reveals to man the nature of his intellect as both empirical and rational; facts, phenomena, are acquired by experience through sensation or consciousness; substance, the source of the facts, is apprehended by reason as their condition, as that without which, the facts would be impossible.

Again says Locke: "All our ideas of the several sorts of substances, are nothing but collections of simple ideas, with a supposition of something to which they belong, and in which they subsist, though of this supposed something, we have

no clear or distinct idea at all." Not clear empirically, it is true, but clear when rationally apprehended. Locke's doctrine naturally led to the skepticism of Hume, who denied the substantial existence of mind, though allowing a string of ideas belonging to nobody. Concerning *cause*, Locke says: "A cause is that which makes any other thing, either simple idea, substance or mode, begin to be; and an effect is that which had its beginning from some other things." Again: "We may observe that the notion of cause and effect has its rise from ideas received from sensation or reflection." Also: "We call the simple idea of heat, in relation to fluidity in wax, the cause of it, and fluidity the effect." Locke distinguishes properly between *creation, generation, making, alteration*, all of which are effects of causes, though different kinds of effects.

The senses, indeed, give us *succession, vicissitude*, but evidently do not give the *efficiency*, the *energy* which produces succession; neither does reflection on sensation give us efficiency, but only an expectation of like consequences in similar cases. The relation of cause and effect is more than that of antecedence and consequence. The cause is efficient in producing the effect; for if it had no influence in bringing the effect into existence, if it has no efficiency, it might as well be absent; but if not present, the effect does not occur; it is, therefore, efficient in producing the effects.

The energy, the efficiency, the nature of cause is indeed revealed to us by our own efforts in producing results. Thus in raising a heavy weight, I first will to raise it, and then put forth the effort to execute the decision of the will. The effort taxes my strength, and reveals to me the nature of cause as force, energy, efficiency, or power, called into action. Thus having acquired the idea of cause, we rationally apprehend that every event proves the necessity of a cause; for an event, before its occurrence, is a non-entity; and non-entity, having no existence, has no power to turn itself into entity. We acquire the knowledge of events and the nature of cause, empirically, and without this empirical knowledge, reason would have no occasion for affirming cause; but events being given empirically, also the nature of cause, reason apprehends the necessity of cause as the condition of events, and affirms the law of causality—that every event must have a cause.

In regard to *morals*, Locke says: "Good and evil are nothing but pleasure and pain, or that which occasions or procures pleasure or pain to us." Again: "Things are good or evil only in reference to pleasure or pain." In *Ethics*, Locke was a utilitarian; but "*good*" should signify not only sensational pleasure, but happiness, the rational satisfaction of a clear conscience.

Locke considers three kinds of law: "Divine law, the measure of sin and duty; civil law, the measure of crime and innocence; and philosophic law, the measure of virtue and vice."

With respect to the divine law, Locke says: "God has given a rule whereby men should govern themselves; . . . and he has power to enforce the law by rewards and punishments of infinite weight and duration in another life. . . . This is the only true touchstone of moral rectitude."

As to the civil law, Locke says: "The civil law is another rule to which men refer their actions to judge whether they be criminal or no." The commonwealth protects the obedient, and punishes the disobedient.

In regard to the philosophic law, the law of opinion or reputation, Locke says: "Virtue and vice are names pretended and supposed everywhere to stand for actions in their own nature, right and wrong; and as far as they really are so applied, they are so far coincident with the divine law. . . . These names, virtue and vice, in the particular instances of their application, through the several notions and societies of men in the world, are constantly attributed only to such actions, as in each country and society are in reputation or discredit; but everywhere virtue and praise, vice and blame go together." The accepted standards may differ in different nations.

Locke is not quite clear as to the essence of virtue or the foundation of moral obligation. An act is not right because it is rewarded; neither is it wrong because it is punished. It is rewarded because it is considered right, and punished because it is considered wrong. An act is indeed right or wrong according as it obeys or disobeys a righteous law. But what makes a law righteous? ~~Is it because it is enacted by an authority able to reward obedience and to punish disobedience?~~ No, a law is righteous because obedience to

Results: good 3 fold
evil

it results in good and disobedience in evil. The good or the evil is not chiefly the reward or the punishment, externally, artificially, or arbitrarily annexed to obedience or to disobedience, though it is true that these may properly be considered. The good secured by obedience to righteous law is threefold—the ennobling and satisfying effect upon self, the good conferred upon others by sympathy, justice, or benevolence, and the external reward. The evil following disobedience is likewise threefold—the degradation and the consequent dissatisfaction, the wrong to others through antipathy, injustice, or malevolence, and the external punishment. Why is a certain action right or wrong? To say that it is right because it is right, or wrong because it is wrong, or that right and wrong are ultimate, right finding its justification in itself, and likewise, that in itself, wrong finds its condemnation, however well meant, is altogether a mistake. Right finds its basis in good and wrong in evil, in general prosperity, or adversity. Subjective good or the evil is not chiefly pleasure or pain, but the satisfaction of conscience bestowed on distinterested conduct or noble achievement, or the remorse of conscience from unjust conduct or degrading vice.

Locke's treatment of the association of ideas, his discussion of language, and proof of the existence of God, are of great value, and certainly are well worthy of careful study.

Locke was a man of great ability, honest and candid, and he expressed his thoughts in such language as can be understood by people of average intelligence.

5. *Dr. Samuel Clarke* (1765-1729). Samuel Clarke was the son of Edward Clarke, an alderman of Norwich, who, for several years, represented that city as member of the House of Commons.

Having completed his preparatory course at Norwich, Clarke entered Caius College, Cambridge, where he soon made himself felt by the manifestation of superior ability.

Clarke may be regarded as the leader of the reaction against the extreme empiricism of Locke, as will be apparent from a consideration of his works. Descartes' system, then dominant at the University, was mastered by Clarke, as also were the new doctrines of Newton, and the Physics of Rohault of which Clarke gave an accurate translation, adding explanatory notes.

Whiston, a celebrated mathematician and divine, meeting Clarke, at a coffee house, and entering into conversation with him, was surprised to find a young man so well informed in regard to the researches of Descartes, Rohault and Newton, which were generally unknown except to a few leading mathematicians.

Clarke turned his attention to Theology, and taking holy orders, he became chaplain to Bishop Moore, of Norwich. In 1699, he published two essays—one on practical religion, and the other a defence of some of Milton's writings; and in 1701, he published a paraphrase of Matthew's gospel, which was followed by like paraphrases of the other gospels. About this time, Bishop Moore gave him the rectory of Draton, and secured for him a parish in the city.

In 1704, having been appointed to the Boyle lectureship, he took for his subject, "*The Being and Attributes of God, the Obligations of Natural Religion, and the Truth and Certainty of Christianity.*" He wrote, in 1706, a refutation of some opinions of Dr. Dodwell on immortality, which led to a controversy with Collins. About this time, he wrote a Latin translation of *Newton's Optics*, for which Newton presented him with £500.

He was appointed by Queen Anne, as one of her chaplains, and in 1709 was made rector of St. James', Westminster. With this elevation, he received the Degree of Doctor of Divinity, defending, as his thesis, the two propositions: "*No article of Christian Faith, delivered in the Holy Scriptures, is repugnant to right reason;*" and "*Without the liberty of human action, there can be no true religion.*" Also, in the same year, he revised Whiston's translation of the Apostolic Constitutions.

In 1712, Clarke published an annotated and illustrated edition of Caesar's Commentaries, also a treatise on the Trinity which called forth a lively discussion. In 1715-16, he was engaged in a discussion with Leibniz, and in 1724, he published a volume of sermons.

On the death of Newton in 1727, he was offered the mastership of the mint, worth £1500 a year; but this offer he declined, which self-denying act, Whiston regarded as one of the most glorious actions of his life.

By royal command, he published, in 1729, an edition, in quarto form, of the first twelve books of Homer's *Iliad*,

which task he performed in such a manner as to be worthy of the perusal of the young prince for whose use it was intended.

Sunday morning, May 17, 1729, on going out to preach before the judges, he was suddenly taken with sickness which caused his death on the following Saturday.

An exposition of the church catechism, which he had, for some months, been giving as lectures, Thursday mornings, at St. James' church and ten volumes of his sermons were published soon after his death. Truly it can be said that Dr. Clarke lived a strenuous life.

Clarke had a cheerful disposition and was a man of fine social qualities, and if he is not to be regarded as of the first rank in philosophy, he had great ability as a philologist, mathematician and logician, as shown in his controversy with Collins and Leibniz.

Clarke's standing, as a philosopher, rests chiefly upon his demonstration of the existence of God and his theory of morals.

In his Theistic argument, Clarke maintained the following propositions: That something is eternal; that there has existed from eternity some one immutable and independent being; that the eternal being is self-existent; that the substance or essence of the self-existing being is incomprehensible; that many of the attributes of that being are demonstrable as well as his existence; that the self-existent being is infinite and omnipresent; that he is one; that he is intelligent; that he has liberty; that he has infinite power; that he is infinitely wise and good.

To establish the proposition that God is eternal and omnipresent, Clarke contended that time and space are not substances, but that they are attributes of God. Of course, they are not substances; they have no dynamic power; they did not create the universe. Are time and space attributes of God, in the sense that they exist only in him, and that if God did not exist, time and space would not be realities? It is true that reason affirms the eternity of God and does not deny his omnipresence; but the eternity and omnipresence of God, no more imply that time and space are not independent realities, and that they can have no existence, save as attributes of God, than that the time of a man's life, or

the space his body occupied, at a particular time, can have no existence save as attributes of that man. The actual time of a man's life and the space his body occupied, at any time, are realities that would have been if the man had never existed; and the same is true in regard to any other man, or in regard to all human beings, or to any being whatever.

If God did not exist, time and space would still remain; they can not be annihilated. Should it be said that God is a necessary existence, and that, therefore, it is absurd to suppose his non-existence, the reply is, it is true that God is the necessary condition of the universe, and since the universe is, God must be; that is, God is conditionally necessary. Reason affirms, not the absolute necessity of God, but his conditional necessity, just as reason affirms the necessity of cause, if an event takes place; but reason does not affirm the *absolute* existence of cause, that is, of cause, if there is no event to be accounted for; neither does reason affirm the absolute necessity of God, but only his conditional necessity from the fact of the existence of the universe. Time and space might have been eternal blanks, nothing else existing so far as reason declares the contrary.

Clarke based his theory of morals on the eternal fitness of things; but the eternal fitness of things can exist only between eternal things, and if things were not eternal they would have no eternal fitness; and herein morals differ from mathematics. The truths of Geometry, relating, as they do, to the forms of space, would still be eternal, were there nothing existing save time and space.

The fitness of things, in their relations to one another within the moral sphere, affords reasons for the moral laws, and divine commandments, and renders conformity thereto reasonable and obligatory. The moral laws, therefore, have relation to the will, and should regulate its decisions whenever moral principle is involved; and though a human being can violate these laws, he is under moral obligation to render them cheerful obedience. Virtue is the voluntary conformity of conduct to the fitness of things in the moral realm. As secondary reasons for right conduct, reward follows obedience to moral law, and punishment follows disobedience. These are prudential reasons for obeying the law.

Clarke insisted on reason or rational intuition, as having great value in philosophy, and herein he differs from Locke, who theoretically ignores reason, as a primitive source of knowledge, yet he uses rational intuition in his reasonings, as seen in his demonstration of the existence of God, which does not differ materially from that of Clarke's.

CHAPTER XIX

Berkeley and Hume

1. *Bishop Berkeley* (1685-1753). George Berkeley, son of William Berkeley, was born in a cottage attached to the castle of Dysert in the county of Kilkenny, Ireland. He received his primary education at the Kilkenny School, from which he passed to Trinity College, Dublin.

The incidents of his life at Trinity are revealed chiefly through his *Commonplace Book*. The head of the college was Browne, a controversialist, and the antagonist of the free thinker Tolland. At that time, William King, the Archbishop of Dublin, the author of a treatise on the *Origin of Evil*, and well worthy of his reputation as a speculative thinker, was an important factor in promoting the philosophical activity, then the prevailing influence at Trinity College.

The works of Bacon, Descartes, Hobbes and Locke, together with the *Physics* of Boyle, the *Principia* of Newton, and his method of Fluxions, the *Calculus* of Leibniz, and his controversies and philosophic speculations, were all well known at the college and were subjected to careful, critical study. A philosophical society was formed by Berkeley and a few of his friends for the purpose of discussing the doctrines of these great thinkers, chiefly those of Boyle and Newton in *Physics*, and Locke in *Metaphysics*. This was a good atmosphere to develop the philosophic genius of such a mind as Berkeley's.

The Master's degree was conferred on Berkeley in 1707, and in the same year he was made tutor in the College and admitted to a Junior Fellowship. About this time, he published some mathematical tracts, which show his familiarity with the works of Descartes, Newton and Leibniz. In 1709, he received Deacon's orders.

In Berkeley's *Commonplace Book* are found such records as the following: "I do not pin my faith on the sleeve of any great man. I act not out of prejudice or prepossession. . . . The chief thing I do, or pretend to do, is only to remove the

mist and veil of words. This it is that has occasioned ignorance and confusion. . . . If men would lay aside words in thinking, 'tis impossible they should ever mistake, save only in matters of fact. . . . The philosophers talk much of a distinction between absolute and relative things, that is, things considered in their own nature, and the same things considered in respect to us. I know not what they mean by things considered in themselves. This is nonsense—jargon. Thing and idea are words of much about the same extent and meaning. By idea I mean any sensible or imaginable thing. A thing not perceived is a contradiction. Existence is not conceivable without perception and volition. I only declare the meaning of the word, as far as I can comprehend it. Existence is perceiving and willing, or else being perceived and willed. Existence is not intelligible without perception and volition—not distinguishable therefrom. All things are ideas." This is idealism outright, pure and simple.

A thing, of course, is neither perceivable nor intelligible without mental action, but that does not prove that it may not be without mental action.

The word *idea*, as employed by Locke, was not restricted to the usage of Plato, signifying the archetype after which the thing was made, nor was it restricted to a mental picture, as in the prevailing more modern usage, but as signifying whatever is apprehended whether a mental fact or an external appearance. Things, it is true, can be realized by our consciousness, only as phenomena, internal or external; but there may be an objective factor, so far as shown to the contrary, unrealized until brought within synthetic relation to our senses, when it is then followed by sensation caused by the action and reaction of object and subject. The sensation is interpreted by the judgment and ideated by the imagination, which is the process called *perception*. The word *phenomenon*, as a synonym of *idea*, may therefore be applied to whatever we are conscious of, whether a mental state or an external appearance.

Locke regarded the secondary qualities of matter, the smell, taste, color, as subjective affections, or possibly as the occult qualities of things which cause these affections; but the primary qualities, as objective, he considered as really existing in things, and corresponding to our notions of them.

Berkeley regarded the so-called material objects, with all their qualities, primary and secondary, as ideas. He held that things objective to ourselves are ideas of the Divine mind, which, as objects of our perceptions, are mistaken for material bodies.

Berkeley's career as a philosopher finds its origin especially in Locke's treatise on the Human Understanding, and naturally divides into three periods: The first at Trinity College; the second in England, France and America; the third, again in Ireland.

In the first period, he published his *Essay towards a New Theory of Vision*. He maintained that the so-called material things are merely phenomenal; that they are ideas truly objective, existing in the mind of God, or that it is God that causes the ideas we see.

The genesis of Berkeley's Idealism is revealed by the theories of perception made by Descartes, Malebranche, and Locke. Descartes held that the essence of matter is extension, that it has no dynamic properties, and that the perception of matter is a miracle. Malebranche though admitting that matter might act on the sense organs, denied that it could act on mind, but that, on the occasion of the excitation of an organ of sense by an external object, God intervenes, and causes a sensation to incite attention to the idea which he then presents and which is the thing actually perceived. Locke says: "The mind knows not things immediately, but only by the intervention of ideas it has of them. Our knowledge is therefore real only so far as there is a conformity between our ideas and the relation of things." But what shall be the criterion, how shall the mind, when it perceives nothing but its own ideas, know that they agree with the things themselves? It is evident that the mind can not know this agreement, unless it knows the things independently of the ideas; but then the ideas would not be necessary to a knowledge of the things. Either the ideas or the things are superfluous; but as we certainly knows the idea, Berkeley rejected the material thing as an incumbrance and altogether useless, and denied its existence, maintaining that the idea is the thing and the thing the idea. We quote from his *Principles of Human Knowledge*: "But, say you, though the ideas themselves do not exist without the mind, yet there may be things

like them, whereof they are copies or resemblances, which things exist without the mind in an unthinking substance. I answer, an idea can be like nothing but an idea, a color or figure can be like nothing but another color or figure. . . .

But, say you, there is nothing easier than for me to imagine trees, for instance in a park, or books existing in a closet, and nobody by to perceive them. I answer, you may do so, there is no difficulty in it; but what is all this, I beseech you, than framing in your mind certain ideas which you call books and trees, and omitting to frame the idea of any one that may perceive them. But do you not yourself perceive or think of them all the while? . . . A little attention will discover to us that the very being of an idea implies passiveness and inertness in it, insomuch that it is impossible for an idea to do anything, or strictly speaking, to be the cause of anything.

. . . It remains therefore that the cause of ideas is an incorporeal active substance or spirit. . . . I find I can excite ideas in my mind at pleasure and vary and shift the scene as oft as I think fit. . . But whatever power I may have over my own thoughts, I find the ideas actually perceived by sense have not a like dependence on my will. When in broad daylight I open my eyes, it is not in my power to choose whether I shall see or no, or to determine what particular objects shall present themselves to my view; and so likewise as to the hearing and the other senses, the ideas imprinted on them are not creatures of my will. There is, therefore, some other Will or Spirit that produces them. Now the *set of rules*, or established methods wherein the Mind we depend on excites in us the ideas of sense, are called the *laws of Nature*. . . .

The ideas imprinted on the senses by the Author of nature are called *real things*; and those excited in the imagination, being less regular, vivid and constant, are more properly termed *ideas*, or *images of things*.

I do not argue against the existence of any thing that we can apprehend either by sense or by reflection. That the things I see with my eyes and touch with my hands, really exist, I make not the least question. The only thing whose existence we deny is that which *philosophers* call *Matter* or *Corporeal substance*. . . . But after all, you say, it sounds very harsh to say we eat and drink ideas, and are clothed with ideas. I acknowledge it does so—the word *idea*

not being used in common discourse to signify the several combinations of sensible qualities which are called things."

In calling the ideas imprinted on our senses, by the Author of nature, the real things, Berkeley is more nearly in agreement with the popular view than is commonly supposed; for the people generally regard the appearances of what they see, as fields, trees, houses, cattle grazing on the hills, the clouds, birds flying in the air, as the things themselves; he is in disagreement with the philosophers, who suppose, what Berkeley denied, a substance or underlying substratum, not visible, nor manifest to any of the senses, but as the cause exhibiting the phenomena. We do not see the energy of the thing which acts on our senses.

Berkeley differed from the people in this, that they hold that things would remain though no mind were present to behold them, or that no mind anywhere imagined their existence, while he, identifying the idea with the thing, maintained that the thing, as idea, ceases to be when no longer present to any mind; for to suppose otherwise is to call that an appearance, which does not appear, which is a contradiction. True, but the energy of the thing does not cease to be when the idea of the thing vanishes from a human mind.

There is, however, in perception, something more than an idea imprinted on the senses—that which imprints the idea, an energy, a cause; and this energy, this cause, is not the idea itself; for this idea, as Berkeley himself shows, is not active but passive or inert, and though we may admit with Berkeley that the idea he calls the thing no longer exists when not in any mind, this energy, this cause remains, as we may verify by placing ourselves in the proper relation within the reach of its influence. Berkeley declares this energy to be manifested by the Author of nature, whose presence pervades every object of the universe, and whose will is the cause of their manifestations. This cause Berkeley holds is not a dead material substratum, but is a living, intelligent, active spirit. Objects thus constituted would remain, though no human being were present to behold them, or though no one, any where represented them as pictures in his imagination. Their *esse* is not *percipi*; but their *esse* is the energy which would make them *percipi*, were a mind present to perceive them. It may be said that, on this

supposition, their being is present to the mind of God, and that it is still true that their *esse* is *percipi* by the mind of God; true, still they do not vanish into non-entity, when no longer ideas of any human mind. It is well to keep in mind that God has given to human beings such a degree of liberty and independence that they often act contrary to God's will. This sinful volition is the man's own act, not God's. A human being would not be annihilated, if no other human being thought of him; the same would hold true of an animal, or a plant, or a crystal, or of any inanimate object; each has the energy of its nature, which causes it to be what it is, and this energy is not annihilated, when separated from the thought of any human being.

Suppose some one should say to an egoistic idealist of the extreme subjective type: "You are nothing but an idea of mine, and if I should cease to think of you, at that moment, you would drop out of existence." The idealist would, no doubt, retort: "Your doctrine is all right, in principle, but you have made a mistake in its application. I am conscious of my existence, which is, therefore, a fact, and would be a fact, whether you thought of me or not; but nothing exists except myself and my ideas. It is then yourself that would vanish into non-entity were I to cease to think of you."

This colloquial contest would be a *drawn game*. In fact no idealist has the temerity to contend, as he ought to, if consistent, that he and his ideas are the only realities. Berkeley had the good sense to admit the existence of objective realities: "I assert as well as you, that since we are affected from without, we must allow powers to be without in a being distinct from ourselves. . . . From the effects I see produced, I conclude, there are actions; and because actions, volitions; and because there are volitions, there must be a will. Again, the things I perceive must have an existence, they or their archetypes, out of my mind; but being ideas, neither they nor their archetypes, can exist otherwise than in an understanding. There is therefore an Understanding. But Will and Understanding constitute in its strictest sense, Mind or Spirit." Granting all this, it does not follow, that the spirit affecting us is always God, the infinite Spirit; human spirits affect us, so do animals, with their lower minds; and so do objects of the vegetable kingdom, and so may, since the

contrary can not be proved, objects of the so-called inorganic world. A molecule is a commonwealth of atoms, or monads, as Leibniz held, each of which is an inextended point of energy, and who can tell whether it may not be a spirit, having intellect, sensibility and will?

To explain perception: External things, the objects of knowledge, have the power to act upon and to excite the sense-organs of the ego or subject, of knowledge, this mechanical action, attended with the physiological excitement of the organ, is followed by a sensation, which is a psychical phenomenon. Reason then apprehends the conditional necessity of an objective cause of the sensation, and of the ego or subject of the sensation. The judgment, by the light of experience, infers what the cause is, as a real thing. The imagination then pictures this inference, or constructs the subjective idea, which is, therefore, not the objective reality perceived, but the mental construction of which we are conscious, embodying our discoveries and inferences in regard to the object, and representing it, so far as it is possible for a mental picture to represent an objective reality. The idea is not the objective reality, any more than the image of yourself, seen behind a mirror, is yourself who stands before the glass. We do not perceive ideas, but construct them and are conscious of them. *Our ideas embody our judgments concerning the objective causes of our sensations.*

In his *Theory of Vision*, Berkeley maintains that, at first, the sense of sight gives only colors, which may appear to have *outness* to one another in a mental picture, but not with respect to the eye itself; and that originally outness from the spectator is not revealed through the sense of sight, which instructed by the tutorship of touch and muscular movement, finally infers distance and magnitude with approximate correctness, by the interpretation of signs whose significance is gradually correctly learned by experience. Likewise, by experience, the sensations gained through all the other senses, are interpreted, and the whole combined into the connected appearances of what is called external nature, a knowledge of whose phenomena and laws constitute Natural Science. Partial phenomena may indeed be referred to finite spirits, but the universal order must be referred to God the Infinite Spirit.

Berkeley's principal works are, *New Theory of Vision*, *Principles of Human Understanding*, *Discourse on Passive Obedience*, *Essay towards preventing the Ruin of Great Britain*, *Dialogues*, *Alciphron, or the Minute Philosopher*, and *The Analyst*, a series of mathematical speculation, and his *Common-place Book*, containing with many other things, an attack on the fundamental conceptions of the fluxional and infinitesimal calculus.

2. *Hume* (1711-1776). David Hume was born at Edinburgh of good family, both on his father's and mother's side. He passed, with credit, his educational career, but not being the eldest son, he received but a slender inheritance, which rendered it necessary that some means of support be found. His family supposed Law to be the proper profession for him, but he soon found it not to accord with his tastes.

He says: "I found an unsurmountable aversion to everything but the pursuit of philosophy and general learning." Necessity, however, drove him to more active measures for his own support, and he resolved to become a merchant, but found himself unsuited to that business.

He went to France, and spent three years very pleasantly in study and in composing his *Treatise on Human Nature*, which was published in 1737, in London, when he was only twenty-six years old. Of this publication, Hume says: "Never literary attempt was more unfortunate than my *Treatise of Human Nature*. It fell dead-born from the press, without such distinction as even to excite a murmur among the zealots." Naturally cheerful and sanguine, he soon recovered from the disappointment, and in 1742, published the first part of his *Essays*, which was favorably received.

On the invitation of the Marquis of Annandale, Hume spent a year with him in England, and as a tutor to the family of the Marquis, he received such remuneration as materially increased his fortune.

Accepting an invitation from Gen. St Clair to attend him, as secretary, in his expedition against Canada, but which ended as an incursion on the coast of France, he was thrown into military circles, and in the uniform of an *aide-de-camp* to the general, associated with officers of high rank. The next year, he attended the general to the courts of Vienna and Turin.

At Turin, he recast the first part of his *Treatise of Human Nature*, and named it *Inquiry concerning Human Understanding*, which met with but little success.

In 1749, he went to the home of his family, where he composed the second part of his essay, calling it *Political Discussions*, and he also wrote his *Inquiry concerning the Principles of Morals*, another part of his *Treatise of Human Nature*, cast anew.

In the mean time, answers and criticisms of his works began to come in, of which he says: "These symptoms of a rising reputation gave me encouragement, as I was ever more disposed to see the favorable than the unfavorable side of things, a turn of mind which it is more happy to possess than to be born to an estate of ten thousand a year."

In 1752, his *Political Discourses* were published in Edinburgh where he then resided, and these Discourses were successful on their first publication. In the same year, having been chosen librarian for the Faculty of Advocates, and enjoying the command of a large library, he formed the plan of writing the *History of England*, but appalled by the magnitude of the undertaking, he began with the accession of the house of Stuart. The work was received with a general howl of indignation, and then seemed to be altogether forgotten.

In his disappointment, Hume thought of retiring into France, changing his name, and never more to set foot in his native country; but war breaking out between England and France, he was prevented from executing his intention.

In the next two years, he published his *Natural History of Religion*, and in 1756, the second volume of his *History of England*, continuing the narrative from the execution of Charles, the first, to the revolution which placed William and Mary on the throne. This volume of the *History* gave less offense than the first, but was only moderately successful.

In 1759, Hume published his *History of the House of Tudor*, but this volume, especially the part treating of the reign of Elizabeth, was generally unpopular. He finally completed his *History*, going back, in the reverse order, to the beginning.

Accepting, in 1763, an invitation from the Earl of Hertford to attend him, as secretary, in his embassy to Paris, he found the association with the Earl to be agreeable, and he

was highly pleased with the civilities and consideration he received from the highest literary and social circles of Paris. He had now become a famous man.

Returning to Edinburgh, Hume engaged again in philosophical labors, but in 1767, he was secretary to Gen. Conway, brother of the Earl of Hertford. In 1769, he returned to Edinburgh, enjoying, as the fruit of his arduous labors, an income of one thousand pounds a year.

Hume makes the following final statement in regard to his own life: "My friends never had occasion to vindicate one circumstance of my character and conduct. . . I cannot say there is no vanity in making this funeral ovation of myself, and I hope it is not a misplaced one." Hume died in 1776.

What is the relation of Hume to Locke's philosophy? As it was with Berkeley, so it was with Hume. Berkeley accepting Locke's fundamental principle, that all our knowledge is derived from sensation and reflection, logically denied the substance of matter, and resolved the objects of perception into ideas; but inconsistently he held that, "since we are affected from without, there must be powers without in a being distinct from ourselves." How did Berkeley know these powers or this powerful Being? Not from sensation, but perhaps he smuggled it in under the head of reflection. Reflection on sensation, however, does not give us the idea of power, which is given only by reason, or rational intuition; but this adds reason, as a source of knowledge, to sensation and reflection, which Locke held to be the only sources.

In like manner, Hume accepting Locke's principles, rejected *mind* as the source of the psychical phenomena of cognition, feeling, and volition. He says: "For my part, when I enter most intimately into what I call *myself*, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch *myself*, at any time, without a perception, and never can observe anything but the perception. . . If any one, upon serious and unprejudiced reflection, thinks he has a different notion of *himself*, I must confess I can reason no longer with him. . . He may, perhaps, perceive something simple and continued, which he calls *himself*, though I am certain there is no such principle in me." Was Hume *certain* of this?

It is true that we are conscious only of phenomena; but perception is not the only phenomenon of which we are conscious. We have sensations, emotions, affections, desires, conceptions, judgments, reasonings, volitions, all of which are phenomena, and of all of which we are conscious. But are these phenomena self-supporting? *Does thinking think?* Thinking implies a thinker who thinks.

When Hume said: "I always stumble on some perception or other," what did he mean by *I*? Did he mean perception? Does perception stumble on itself? The *I* which stumbles on the perception is different from the perception on which it stumbles. Does the *I* change with the perception? Memory, the evidence of personal identity, is proof that *I* who have a certain perception am the same *I* who had a different perception yesterday. We are conscious of the perception. The *I*, as the subject of the perception, we know by rational intuition, not as a fact of experience, but as the necessary condition of the perception—as the one that perceives. The same *I* that perceives, has sensations, instincts, appetites, emotions, affections, desires, volitions; he loves and hates, does right or wrong, and has the approbation or remorse of conscience. Perception is not the only mental act.

Hume admits that his reasoning could destroy the belief neither in an external world of matter nor in an internal world of mind. The belief is natural and unavoidable, and is based on experience.

To trace the connection of Locke's views of causation and Hume's: Locke, in calling a sensation or an idea the product of power, presupposes substance as truly as in calling it a sensible quality; but he regarded quality as inhering in the substance, but power he conceived to be a cause producing an effect, a sensation in us, not found in the substance; for "whatever is considered by us to operate to the producing of any particular simple idea which did not before exist, hath thereby in our minds the relation of cause." Here the *idea* has an objective factor in the thing; it has also a subjective factor in the mind which interprets the sensation caused by the thing, and ideates, pictures, or represents the cause. The idea following a sensation implies the presence of a thing acting on an organ of sense; but the idea called up in

the absence of the thing is a pure creation of the imagination, not caused by a sensation, yet if vivid, it may, by reflex action, produce a sensation, which, except in extraordinary cases, is much fainter than the sensation caused by the object. The idea of pain, following the imaginary thrust of the hand into the fire, is faint compared with the real pain attending the actual thrust, and lacks the fearful effect on the hand.

The relation of cause and effect is, according to Locke, not contained in the thing itself, but is extraneous, and arises from the notice our senses take of the vicissitudes of things, that which produces an idea we call cause, and that which is produced the effect. Science assumes that, in the order of nature, cause signifies that which accounts for change.

Now let us pass to Hume's theory of causation. He says: "I find, in the first place, that whatever objects are considered as causes or effects are contiguous, and that nothing can operate in a time or place which is ever so little removed from those of its existence. Though distant objects may sometimes seem productive of each other, they are commonly found, upon examination, to be linked by a chain of causes which are continuous among themselves and to the distant objects, and when we can not discover the connection, we still presume it to exist. We may, therefore, consider the relation of contiguity as essential to that of cause."

The second relation between cause and effect, Hume declares to be that of priority, in time, in the cause before the effect; that is, the cause is the antecedent, and the effect the consequent. This may, in general, be allowed, as when heat melts ice. Suppose, however, that we have the equation: $y = f(x)$; that is, y is a function of x , or that, if x changes, y changes, so as always to be equal to $f(x)$. It is proper to say the change in x is logically followed by a change in y ; but, chronologically, the change in y is simultaneous with a change in x , otherwise y would not always be equal to $f(x)$. Here there is no priority in time in the cause.

The third relation between cause and effect is, according to Hume, that of necessary connection, which he considers of greater importance than the others before mentioned; but says he: "When I cast my eyes on the *known qualities* of objects, I immediately discover that the relation of cause

and effect depends not in the least on *them*. When I consider their relations, I can find none but those of contiguity and succession, which I have already recorded as imperfect and unsatisfactory."

Hume then asks: "First, for what reason we pronounce it necessary that everything whose existence has a beginning should have a cause? Secondly, why we conclude that such particular causes must *necessarily* have such particular effects; and what is the nature of that *inference* we draw from the one to the belief we repose in it?"

Hume then examines the first question, Why do we pronounce a cause to be necessary to account for everything whose existence has a beginning? He says: "'Tis a general maxim in philosophy, that whatever begins to exist must have a cause." The truth of this maxim, Hume denies. He says: "All certainty arises from the comparison of ideas, and from the discovery of such relations as are unalterable, so long as the ideas continue the same. These relations are resemblance, proportion in quantity and number, degrees of any quality, and contrariety, none of which are implied in this proposition, whatever has a beginning has also a cause of existence. That proposition is therefore not intuitively certain." Hume reaches this conclusion by consistently applying Locke's principle; *All our knowledge is derived from sensation and reflection*. Locke saved the principle of causality, by lugging in, contrary to his principle, the necessity of cause, given by rational intuition, to account for the occurrence of an event. Locke says, Book IV, Chap. 10, Sec. 2: "In the next place, man knows, by an intuitive certainty, that bare nothing can no more produce any real being, than that it can be equal to two right angles. . . . If, therefore, we know there is some real being, and that non-entity cannot produce any real being, it is an evident demonstration, that from eternity there has been something, since what was not from eternity, had a beginning, and what had a beginning must be produced by something else." Locke here reached the truth by his *inconsistency* to his principle; and by Hume's *consistency* with this principle, which he accepts, he misses the truth.

But let Hume explain himself. He says: "We can never demonstrate the necessity of a cause to every new existence,

or new modification of existence, without showing, at the same time, the impossibility there is that anything can ever begin to exist without some productive principle; and where the latter proposition cannot be proved, we must despair of ever being able to prove the former. . . . As these ideas of cause and effect are evidently distinct, 'twill be easy for us to conceive any object to be non-existent this moment, and existent the next, without conjoining to it the distinct idea of a cause or productive principle. The separation, therefore, of the idea of a cause from that of a beginning of existence, is plainly possible for the imagination; and is therefore incapable of being refuted by any reasoning from mere ideas, without which it is impossible to demonstrate the necessity of a cause."

The imagination can indeed picture an event without a cause, but what has the reason to say? To suppose an event to happen, or a being begin to be without a cause is to suppose non-entity to jump into being; but non-entity is nothing, can not, therefore, jump into being; to jump is to act, and to act implies that it already is, and that it is, therefore, not non-entity. We have here no event without a cause. Even Hume's imaginary object was caused by an act of his imagination. If cause is not necessary to an event, an event without a cause should be found, which has never been the case.

But Hume goes on with his objections to the necessity of cause. He says: "Everything, 'tis said, must have a cause; for if anything wanted a cause, it would produce itself; that is, exist before it existed, which is impossible. But this reasoning is plainly inconclusive; because it supposes, that in our denial of a cause, we still grant what we expressly deny, *viz.*, that there must be a cause, which, therefore, is taken to be the object itself, and that, no doubt, is an evident contradiction." Here Hume displays his subtle power of reasoning. The argument criticized does not *assume* that there must be a cause, but asserts that, according to Hume's view, non-entity jumps into entity, without any cause for its jumping, which is impossible, and from this impossibility, it infers, not assumes, a cause; but the *idea* of this extraordinary feat of non-entity jumping into being, was caused by the brilliant imagination of Hume himself.

Again, Hume says: "'Tis exactly the same case with the

third argument, which has been employed to demonstrate the necessity of a cause, whatever is produced without any cause is produced by *nothing*, or in other words has nothing for its cause. . . . 'Tis sufficient only to observe, that when we exclude all causes we really do exclude them, and neither suppose nothing nor the object itself to be the causes of the existence." Hume's answer is a just criticism on the use of the word *produced*; for *produced* means *to be caused*. Instead, therefore, of saying, whatever is produced without any cause is produced by nothing, or has nothing for its cause, let us say that the denial of the cause of any event is the affirmation that the event was not produced, but came of itself from non-entity into being, which is the assumption of an absolute commencement. Let any one accept this who will. If an existing thing could not have come of itself from non-entity into being, it must have been produced or caused.

Hume next raises the question, "How experience gives rise to such a principle?" But this question he sinks into the following: "Why we conclude that such particular causes must necessarily have such particular effects, and why we form an inference from one to the other?"

In answer to this question, Hume says: "All our arguments concerning causes and effects consist both of an impression of the memory or senses, and of the idea of that existence which produces the object of the impression, or is produced by it. Here, therefore, we have three things to explain, viz., *First*, the original impression. *Secondly*, the transition to the idea of the connected cause and effect. *Thirdly*, the nature and qualities of that idea." As to the first question, he says: "'twill always be impossible to decide with certainty whether they arise immediately from the object, or are produced by the creative power of the mind, or are derived from the author of our being."

Hume holds that "the vividness of the impressions on the senses and memory alone distinguishes them from the imagination. . . . 'Tis therefore by experience only that we can infer the existence of one object from that of another. . . . Thus in advancing, we have insensibly discovered a new relation betwixt cause and effect, where we least expected it, and were entirely employed on another subject. This

relation is their *constant conjunction*. Contiguity and succession are not sufficient to make us pronounce any two objects to be cause and effect unless we perceive that these two relations are preserved in several instances."

From the *constant conjunction*, Hume attempts to explain our belief in the *necessary connection* between cause and effect. He inquires: "Whether experience produces the idea by means of the understanding or imagination; whether we are determined by reason to make the transition, or by a certain association and relation of perceptions. If reason determined us, it would proceed on the principle, that the course of nature continues always uniformly the same. . . . There can be no demonstrative arguments to prove that those instances of which we have had no experience resemble those of which we have had experience. . . . It shall therefore be allowed for a moment that the production of one object by another, in any one instance, implies a power, and that this power is connected with this effect. But it having been already proved that the power lies not in the sensible qualities of the cause, and there being nothing but the sensible qualities present to us, I ask why, in other instances, you presume that the same power still exists merely upon the appearance of these qualities?. . . . Thus not only our reason fails us in the discovery of the ultimate connection of causes and effects, but even after experience has informed us of their constant conjunction, 'tis impossible for us to satisfy ourselves by our reason why we should extend that experience beyond those particular instances which have fallen under our observation."

Again: "When the mind, therefore, passes from the idea or impression of one object to the idea or belief of another, it is not determined by reason, but by certain principles which associate together the ideas of these objects, and unite them in the imagination."

The relation of cause and effect is, therefore, resolved by Hume, into that of the association of ideas induced by habit or customs. But is it not strange that Hume, who attached so great importance to experience, should overlook the experience of the *effort* we make in producing effects on material objects that surround us? To lift a chair, we exert an effort. This experience reveals to us that the relation of cause and

effect is more than that of contiguity, or antecedence and consequence, or a necessary association of ideas, or a constant conjunction; it proves, *and that too by experience*, that the very nature, the very essence of cause is efficiency, energy force, the exertion of power. *The real essential element of cause, the theory of Hume leaves out*; but in this he was consistent with his acceptance of Locke's theory of knowledge—that all knowledge is derived from sensation and reflection.

Cause is, doubtless, an immediate and invariable antecedent; but why? Because it is efficient in producing the effect. If it exerts no influence on the effect, it might as well be absent; its presence or absence would make no difference; but when absent, the effect does not appear; it, therefore, exerts an influence, or is efficient; and this would be true, though cause and effect were subjective ideas; but in this case the cause requires explanation and the cause of that cause, and so on.

Hume's argument against miracles, found in his *Essays*, is loosely connected with his system of philosophy. If reality is found only in ideas and their relations, and if the necessity of causation is simply subjective, the necessary connection of ideas, induced by constant association of one idea with another, the imagination is at liberty to pass from the command of a powerful being to any conceivable consequence, however wonderful. It is only by giving objective reality to nature and to the laws of nature, and by assuming that a miracle is a violation or suspension of these laws, that Hume's argument has any force.

Hume says: "It is experience only which gives authority to human testimony, and it is the same experience which assures us of the laws of nature. When, therefore, these two kinds of experiences are contrary, we have nothing to do but to subtract the one from the other, and embrace an opinion, either on one side or the other, with that assurance which arises from the remainder. But, according to the principle here explained, this subtraction, with regard to all popular religions, amounts to an entire annihilation; and therefore we may establish it as a maxim, that no human testimony can have such a force as to prove a miracle, and to make it a just foundation for any such system of religion."

The weighty objection to miracles entertained by scientific

minds, is that they are violations of the laws of nature, which such minds hold to be inviolable. But is a miracle a violation or a suspension of a law of nature? Cannot God, by a special intervention, without violating any law, produce a marvelous event which would not otherwise occur? When I lift a weight, against the force of gravity, do I suspend the law of gravity? If I can do such things, much more can God, without violating any law, perform wonders, which would not take place, without his intervention. A miracle, then being possible, can be proved by testimony properly sifted, and though testimony is sometimes false, it may be employed to establish the fact of miracles, as under proper conditions, it is employed to prove many other facts. Neither Hume nor any other man, is authorized in saying that a miracle is contrary to all experience, or that miracles have never been wrought.

Hume's dialogues on *Natural Religion* are interesting and will well repay the reading, as will all his writings.

If the series of causes and effects goes back to infinity, or has no beginning, where each event is accounted for by its antecedent cause, which cause is an event accounted for by its cause, have we really accounted for anything? The last cause considered is still not accounted for? In his admirable colloquy between Philo, Demea and Cleanthes, Hume makes Cleanthes answer the question thus: "In such a chain or succession of objects, each object, each part is caused by that which preceded it, and causes that which succeeds it. Where then is the difficulty? But you say the *whole* wants a cause. I answer that the uniting of these parts into a whole, like the uniting of several distinct counties into one body is performed merely by an arbitrary act of the mind, and has no influence on the nature of things. Did I show you the particular cause of each individual in a collection of twenty particles of matter, I should think it very unreasonable should you afterwards ask me what is the cause of the whole twenty. This is sufficiently explained by explaining the cause of the parts."

The question, however, is not fairly answered. Let the particles be in a serial order. Suppose the first explains the second, the second the third, the third the fourth, and so on, to the twentieth. All are explained except the first which

is left without explanation. Is the explanation satisfactory?

So in an infinite series of causes and events, however far back we go, there is always something unexplained. The infinite series, therefore, can never satisfy the human mind; and hence must be rejected as unsatisfactory. But if we go back to the eternal first cause, we have the cause of the entire universe. The skeptic, however, will say, you have not accounted for the first cause. The first cause, as eternal, was not caused, and does not need to be accounted for. Something must be eternal, or there would never have been anything. The eternal First Cause is a necessary affirmation of the human reason; it is *eternal being* and not an event, and therefore requires no cause.

Hume was a sharp critic; and it may be true, as Hamilton says, that he was a skeptic and while holding that his conclusions were the legitimate outcome of the prevailing philosophy, yet that he was not a dogmatist, and had no faith in the truth of those conclusions. He says: "After the most accurate and exact of my reasoning, I can give no reason why I should assent to it."

Hume has had an immense influence on all subsequent philosophy; he was an epoch maker, and awoke Kant from his dogmatic slumbers.

CHAPTER XX

Kant

Kant (1724-1804). Immanuel Kant was born in Königsberg, where he was educated, and where he thought, and taught and wrote, and died.

He was of Scotch descent, a fact not without interest in regard to the relation of his philosophy to that of Hume. His father was an industrious saddler, and his mother an intelligent woman, who taught her son to be a lover of nature, by walking with him in the open fields, calling his attention to the plants and animals they met with on their way, reminding him they were the works of God. He always spoke with reverence of his parents, and valued the moral training they had given him.

There were ten children in the family besides Immanuel—three sons and seven daughters. Two of the sons and four of the daughters died early. His remaining brother, John Henry, was eleven years younger than Immanuel. He turned out well, graduated from the university and became a useful minister.

The social, intellectual, and religious character of the people of Königsberg exerted a favorable influence on Kant's development, as some of the citizens were enterprising business men, or officers in the army, or professors in the university. Kant repaid the good he received from his fellow citizens by the fame he gave to his native city, entitling Königsberg to be called *the city of pure reason*.

The pastor of the family, Dr. Schulz, noticed the early indications of ability displayed by Immanuel, which he had favorable opportunities of doing, as he was at the head of the gymnasium where the young Kant received his preparation for the University, and accordingly advised his parents to give him a good education.

At home, in the gymnasium, the university, or the church, he was under the influence of the pietistic party, and in this

pure atmosphere he grew up to manhood with uncontaminated morals, though he did not fully accept the pietistic theology.

Heydenreich, his teacher of Latin in the gymnasium, inspired in him such a love for that language, that he with his comrades, Ruhnken and Cunde, formed a little club for the purpose of reading Latin authors, not in the course of study, and this proved a great advantage in giving him a broader culture. The poem of Lucretius, *De Rerum, Natura* was his especial favorite, and probably gave him a distaste for theology.

Kant remained eight years at the gymnasium, and entered the university at the age of sixteen. While at the gymnasium, Kant's tastes were for the classics, and Ruhnken's for philosophy; but their after lives reversed this preference, Kant becoming the renowned philosopher, Ruhnken a distinguished linguist. Cunde became a very superior teacher of Latin.

In the university, the lectures of Professor Knutzen, extending over a variety of subjects—physics, metaphysics, ethics and mathematics, gave him great satisfaction, and these were Kant's specialties for a time after he had finished his course, though he did not at first make prominent the study of metaphysics. For several years after his graduation he directed his efforts chiefly to physics and mathematics.

Kant had free access to the library of Knutzen, and was encouraged to converse freely with him on the intricacies of his studies. He was also greatly profited by the lectures of Professor Tecker, and enjoyed his friendship and instructive conversation. The influence of these advantages is shown in Kant's career as a philosopher.

Though Kant matriculated in the University, as a theological student, he did not choose the ministry as his calling, yet he attended the lectures of Dr. Schulz on theology, and was greatly profited by the thorough discussions and broad views which Schulz never failed to present.

Kant's first book treated of Kinetics. Its chief value now is historic, showing that the bent of Kant's mind at that time was towards physics and mathematics.

Kant was a family tutor for nine years, first in the family of a preacher near home, then in the family of Von Hüllesen, about sixty miles from Königsberg, the greatest distance

from his native city he ever reached. Later he was tutor in the family of Count Kayserling, whose residence was near Königsberg. This position was of great advantage to him, since here he met, on friendly terms, persons of distinction, and learned the usages of good society, and these refining influences were seen in Kant's life by his ease of manner and the versatility it gave to his mind. The training he gained in his tutorship was valuable in cultivating the ability to make his points clear in his university lectures.

In 1754-5, Kant published discussions of the subjects: *Has the earth been subject to any change in its revolution on its axis? General Natural History, or Theory of the Heavens*. In the last of these, Kant anticipated the *Nebular Hypothesis* of La Place. These books were prepared while he was tutor.

To entitle one to a nomination to a professorship in the University, it was necessary for him to prepare and defend in Latin three dissertations. Kant's first dissertation was *On Fire*; his second, *A New Explanation of the First Principles of Metaphysical Knowledge*; his third, *The Advantages to Natural Philosophy of a Metaphysic connected with Geometry*. All were in the line of his specialties. The difficulties in the way of obtaining a professorship in a German University is a spur to efforts and to a thorough preparation.

In 1755, Kant was graduated as doctor, and was appointed *Privatdocent*, which subordinate position he held for fifteen years, with a gradually increasing popularity, as well as increasing knowledge, and a development of his ability. For his first course of lectures, Kant chose for his subjects, Mathematics and Physics—subjects on which he was sure of success.

As it was customary for professors to use compends as a basis for his lectures, Kant chose Wolff's for Mathematics, and Eberhard's for Physics. In a short time he added Logic and Metaphysics to his subjects, choosing for Logic the compend of Meyer, and for Metaphysics those of Baumister and Baumgarten. He made thorough preparation for his lectures, and delivered from three to four each day, taking great care to make his points clear to the students, aiming to show the practical signification and application of his theories.

In 1770, Kant gained the object of his ambition by his appointment to the chair of logic and metaphysics. The

subject of his inaugural address was: *De Mundi Sensibilis et Intelligibilis Forma et Principiis*. Eleven years later, appeared his great work, *Kritik of Pure Reason*, which we shall now proceed to examine, dropping for the present further details respecting his life, and taking, as the acceptable and reliable text, the English translation by F. Max Müller.

The forerunners of Kant, of the English, were *Bacon*, *Locke*, *Berkeley* and *Hume*. Of the continental, *Descartes*, *Spinoza*, *Leibniz* and *Wolff*. All Kant's previous study was a preparation for his great work; he was twelve years in planning it and thinking it out, but only five months in writing it.

On the first page of the Introduction, Kant says: "Experience tells us what is, but not that it must be necessarily as it is, and not otherwise. It, therefore, never gives us any really general truths, and our reason which is particularly anxious for that class of knowledge, is roused by it rather than satisfied. General truths, which at the same time bear the character of an inward necessity, must be independent of experience,—clear and certain by themselves." Calling that a *condition* which must be in order that something else may be, necessary truths are the conditions of the facts of experience, but they are not apprehended apart from experience. Reason would never affirm that every event must have a cause, if no knowledge of an event had ever been acquired by experience. Knowledge of necessary truth, Kant calls knowledge *a priori*, while the knowledge of contingent facts, he calls knowledge *a posteriori*. But knowledge *a priori*, is not knowledge already existing in the mind, though latent, as innate ideas, as Kant seems to teach, but ready for use when called for; yet reason has the power to apprehend the necessity of the conditions of facts known by experience; it is not *a priori* knowledge, but the *a priori* power of reason to know though the power gives the knowledge only after the experience of the facts.

Again, Kant says: "If we remove from experience everything that belongs to the senses, there remain, nevertheless, certain original concepts, and certain judgments derived from them, which must have had their origin entirely *a priori*, and independent of all experience, because it is owing to them that we are able, or imagine that we are able, to predicate

more of the objects of our senses than can be learnt from mere experience, and that our propositions contain real generality and strict necessity, such as mere empirical knowledge can never supply." Are there original concepts and certain judgments independent of all experience? No; we have the experience first of certain facts, facts not self-supporting, facts that require certain conditions; and when these facts are given by experience, reason wakes up and apprehends the necessity of the conditions of these facts, by seeing that without these conditions, the facts themselves would be impossible. The *reason*, as a faculty, is *a priori*, not the *knowledge* of the conditions of the facts, but the power to know the necessity of the conditions which render the facts possible. Chronologically the knowledge of the facts is antecedent to the knowledge of the conditions of the facts, but both the conditions and the power to know the conditions are antecedent to the knowledge of the facts, and give to these facts a rational explanation. The knowledge of the conditions has not its origin entirely *a priori*, and independent of all experience, as Kant asserts; were it not for the facts, we should never know the conditions.

Kant points out the tendency to enlarge the sphere of our judgments beyond the limits of experience, and states that, first of all, "we should ask the question, how the mere understanding could arrive at all this knowledge *a priori*, and what extent, what truth, what value, it could possess. The brilliant example of mathematics gives ground for encouragement; but mathematics deals with objects only so far as they can be represented by intuition; and though a dove finds the air a resistance to its flight, yet it can make no progress through empty space." Certain facts, however, being given, reason does apprehend the necessity of their conditions, but not without the facts.

"Reason finds legitimate employment, even a large part of its work, in the analysis of our concepts, and if this does not give us knowledge strictly new, yet it renders the obscure clear, and the confused distinct; yet reason should avoid adding, as it sometimes does, without being aware, other concepts totally different in character, and thus deducing new judgments void of all validity." Reason may legitimately assert the necessity of the conditions of the phenomenal.

Kant then proceeds to make the distinction between analytic and synthetic judgments, in their affirmative form. An analytic judgment is one in which the conception of the predicate is involved in that of the subject; as *A body is extended*. A synthetic judgment is one in which the predicate adds something not involved in the conception of the subject; as *A body is heavy*. Analytic judgments render the knowledge of the subject clear; synthetic judgments add something foreign to the subject.

Synthetic judgments *a posteriori* present no difficulty, since the relation of the subject and predicate is known by experience; but how are synthetic judgments *a priori* possible? How do I know, for example, that *every event must have a cause*? This is Kant's great question, and we shall see, as we proceed, how he answers it. In the meantime, to state our own position, we do not hesitate to declare that valid synthetic judgments, strictly *a priori*, that is, apart from all experience, are altogether impossible. To be able to affirm that every event must have a cause, I must first have, by experience, knowledge of events; body and motion being given by experience, reason apprehends *space* as their necessary condition; persistence and succession require *time*; the universe, or any existing concrete thing demands as its ultimate condition, the *eternal existence* of the first cause. The non-existence of an eternal existence involves the non-existence of all realities save space and time. Psychical phenomena require an *ego* as their necessary condition. Kant calls his treatment a *critique of pure reason*, not a *doctrine*; declaring that it is meant, not to extend our knowledge, but to rectify it, and to become the test of the value of all *a priori* knowledge. It must contain both the doctrine of elements, and the doctrine of method of pure reason, with their subdivisions.

The effect produced in the sensibility by an object is a sensation followed by an empirical intuition of the object whose appearance is called a phenomenon. That in the phenomenon corresponding to the sensation, Kant calls the *matter*; but that which causes the matter to be perceived in a certain order, he calls its *form*. The matter is known *a posteriori*; but as it cannot be sensation which arranges sensation in certain forms, Kant holds that their form must be

ready for them in the mind *a priori*, and can therefore be considered as separate from all sensation. It is, however, evident that the form as a conception of a necessary reality, does not exist in the mind before the sensation, but the reason exists as a power to arrange the form required by the sensations, in conformity with their necessary condition, without which reality, the sensations themselves would be impossible. The *forms* are not innate; they are not known till called for by the facts of experience, as the rational explanation of these facts. It suffices, if they are ready when needed. The science of all the principles of sensibility *a priori*, Kant calls *Transcendental Aesthetic*.

Separating from the sensibility everything added by the understanding, and from the remainder, whatever belongs to sensation, Kant finds two pure forms of sensuous intuition—*space* and *time*. He then inquires: "What then are space and time? Are they real beings? Or, if not that, are they determinations or relations of things, but such as would belong to them even if they were not perceived? Or lastly, are they determinations and relations which are inherent in the forms of intuition only, and therefore in the subjective nature of our mind, without which such predicates as space and time would never be ascribed to anything?"

1. As to *space*, Kant holds that it is not an empirical concept derived from external experience. That if certain sensations be referred to things outside of myself, or as side by side, the representation of space must be already there; nor is it borrowed through experience from relations of external phenomena, which become possible only by means of the representations of space. Hence, "space is a necessary representation *a priori*, forming the very foundation of all external intuitions." The truth is, space is not a representation at all though we may represent it. Reason apprehends space when it is needed, not before. Space is that in which bodies exist and motion takes place. The power to represent space, not the representation, is *a priori*.

Is space a representation, or is it an external reality? Let us first inquire whether there is any distinction between the idea of a thing and the thing itself. Is the idea the thing, and the thing the idea? Is it true that *esse est percipi*? It is, however, true that we have no knowledge of a thing in itself;

for knowledge relates a thing to a mind. But who can prove that nothing exists wholly unknown, or that existence is impossible without an idea of that existence? Kant had the good sense not to deny the existence of a thing in itself. Berkeley's statement has not been refuted, that since we are affected from without, there are powers without capable of affecting us. Berkeley was right in affirming external powers, but mistaken in what they are. Two persons are talking with one another. If one should go away and lose all thought of the other, that would not annihilate the other, as he would testify still to his own existence. Neither would the separation of one's thought from anything, a dog, a tree or what not, annihilate that thing; and if the separation of any particular thought from any thing would not annihilate that thing, the separation of all thought from it would not strike it out of existence. We notice the planet Jupiter rising about sunset, and watch its movement night after night, with respect to the stars in nearly the same range. For a month or so, Jupiter appears to retrograde, or go westward, with respect to the stars, then it becomes stationary, and finally its motion is direct, or eastward. All this is explained by the supposition that both the Earth and Jupiter, are real bodies and revolve eastward round the sun, the earth being nearer, revolves more rapidly, throwing the range of Jupiter westward, as the earth sweeps by, but otherwise the phenomena are inexplicable. If Jupiter is a real objective body, moving round the sun, then space is an objective reality, and not a mere representation. Space is not dynamic, it is not substance, either matter or spirit; it is the condition of body and motion, but indifferent to either, and is one whole, infinite in extent, and eternal in duration. As an absolute existence, space is a reality, and must be, whether any thing else exists or not. It is apprehended by reason as the possibility of body or motion, which call for its representation. Phenomena are pictures representing the real, as a photograph the original.

Reason apprehends space as soon as it is needed, as a logical antecedent, to account, not simply for the representation of body and motion, but for the facts of body and motion, but not before; it was no more known before the experience of these facts, than was cause before the experience of an event, though it is true that it existed before. Here we have

a reality existing before it was known. Did not the earth move before any human being knew of its motion? Would the denial of this motion arrest the progress of the earth as it sweeps in its annual course around the sun? Did not the planet Neptune cause perturbations in the motion of Uranus, before Neptune was discovered, or even before its existence was suspected? Is not the whole universe contained in space extending infinitely in all directions? Would the annihilation of the universe annihilate space?

"Taste and color," as Kant says, "are sensations of which no one can have an idea, *a priori*; but space refers to a pure form of intuition, and involves no sensation;" yet there are appearances which require space for their explanation. "Objects by themselves are not known to us at all, and what we call external objects are nothing but representations of our senses, the form of which is space, and the true correlative of which, that is, the thing by itself, is not known, nor can be known by these representations, nor do we care to know anything about it in our daily experience."

Of course, objects by themselves are not known to us at all; for to be known by us, they must be brought in relation to us, and would no longer be by themselves. The appearances of external objects in space are pictures constructed by our imagination, as representations, according to our judgment of the external realities which cause our sensations, and thus embody our knowledge, or discoveries, or belief, in regard to these objects. As pictured knowledge or belief, they represent external objects, no doubt, more or less imperfectly; but it is the best we can do, and we must be content. To deny the existence of external objects, as some idealists do, is illogical. On them falls the burden of proof, which they artfully attempt to shift upon their opponents.

2. *Of time*, Kant says: "Time is not an empirical concept deduced from any experience, for neither co-existence nor succession would enter into our perception, if the representation of time were not given *a priori*. Only then can we imagine that certain things happen at the same time or at different times." The representation of time is not given *a priori*, that is, the idea of time is not innate; but the instant we experience succession, time is rationally apprehended as the condition of succession. Reason apprehends time as that without which there could be no succession.

"We cannot take time away from phenomena, though we can take phenomena away from time. In time alone is the reality of phenomena possible. Time has one dimension only. Different times are not simultaneous, but successive, while different spaces are never successive, but simultaneous." Experience gives facts, but reason gives us the necessity of the conditions of the facts. Before the experience of succession, the rational apprehension of time, as the condition of succession, was impossible. We experience succession before rationally apprehending the necessity of time; but before man existed, and hence before the intuition of time, did not the earth exist and undergo geological changes? Time, therefore, of which the geological periods are parts, existed long ages before its representation by the human mind. Hence, it is not true, as Kant says: "Time is nothing but the form of the internal sense." Time existed before the internal sense; it is not substance, either matter or spirit. It is that in which things persist or succession takes place. It is neither persistence nor succession, but their necessary condition, and would exist were there no persistence nor succession.

Again, Kant says: "Time has objective validity, with reference to phenomena only, but time is no longer objective, if we remove the sensuous character of our intuition, that is to say, that mode of representation which is peculiar to ourselves, and speaks of things in general. Time is therefore simply a subjective condition of our intuition, but by itself, apart from the subject, nothing." Events, independent of our knowledge or representation, took place and were successive long before man existed, and time was, therefore, a reality then as it is now.

Kant was aware that intelligent men would object to his theory of time, and reject it; he said, therefore, "what they object to is this: Changes, they say, are real; this is proved by the change of our own representations, even if all external phenomena and their changes be denied. Changes, however, are possible in time only, and therefore time must be something real.

The answer is easy enough. I grant the whole argument. Time is certainly something real, the real form of our internal intuition. Time, therefore, has subjective reality with respect to internal experience; that is, I really have the

representations of time and of my determinations in it. . . . There remains, therefore, the empirical reality of time, only as the condition of experience, while absolute reality cannot, according to what has been shown, be conceded to it. Time is nothing but the form of our own internal intuition." The geologic periods were not real and successive before man existed, and were not therefore the forms of our internal intuition. Time is not an innate *a priori* representation, since it is apprehended by reason only as the necessary condition of the co-existence and succession of events, whether subjective or objective. It is the necessary reality without which persistence, co-existence, or succession would be impossible.

Again, Kant says: "Motion presupposes the perception of something moving;" but a body might move without such perception. The perception of motion, however, does presuppose a moving body, and also both time and space. Neptune moved before its motion was perceived. If motion is actual, that is, if anything moves, space is not ideal, but real. If succession is actual, that is, if one event follows another, time is not ideal, but real. Neither body, nor succession, nor motion can be proved to be simply subjective, though our ideas of them are subjective with an objective factor. Reason apprehends, at least my reason does, that both space and time are absolute realities, infinite, eternal. They are not substance, either matter or spirit; they are not dynamic, and therefore not rivals of God, but they afford him infinite possibilities for the display of his matchless perfections, in the magnificent universe which his power and wisdom have called into being.

Kant sums up his doctrine of sensuous perception by saying: "All intuition is nothing but the representation of phenomena." Mental phenomena are facts of mind known by consciousness; representations of external objects are the phenomena of perception. Facts, whether internal or external, are contingent, and are known by experience, and the intuitions relating to these facts are empirical; but the intuitions relating to the necessary conditions of these facts are rational—the apprehension of fundamental truth. Rational intuitions are not representations of phenomena, but are apprehensions of the necessity of the conditions of phenomena.

Again, says Kant: "The things which we see are not, by themselves, what we see." Of course not; we see the appearances of things, that is phenomena, or our representations of things. The things represented are not by themselves, but in relation to *ourselves*, otherwise we could not see them; but seeing is judging what kind of objects those are which cause in us certain sensations, and embody our judgments in mental pictures, which represent, more or less correctly, so far as it is possible for a picture to represent objects, our discoveries or opinions regarding those objects.

"If we drop our subject, or the subjective form of our senses, all qualities, all relations of objects in space and time, nay space and time themselves would vanish." If we drop the subject, all qualities, even space and time themselves, would vanish with respect to that subject, for the subject then is nothing, or no longer subject, and could know nothing. Dropping the actual subjective form of our senses, though giving them another form, the appearances having still a subjective, as well as an objective factor, would of course, change, just as the color of objects appears to change, as we view them through different colored glasses; but space and time are not seen by the sense of sight, but are rationally apprehended, and would be held to be the same by all rational beings who have perceptions of body and motion, of persistence or succession. It may be asked then, why did not Kant so regard space and time? He did say: "Space, as the very condition of external objects, is essential to their appearance or intuition," and "changes are possible in time only, and therefore time must be something real." But Kant was carried away by his theory which makes space and time merely subjective forms of thought. Not only is the representation of space necessary to the representation of objects, but space is necessary to the objects themselves.

To deny the objective reality of space and time is to render all clearness of thought impossible, and to introduce the utter confusion of reducing the universe to a point, and all events of history to a moment of time. That is not clear thinking; *it is utter confusion.*

The understanding Kant calls a non-sensuous faculty of knowledge, not intuitive, but discursive, by means of concepts, and holds that all knowledge is either intuitive or dis-

cursive; and this is well, if we divide intuitions into empirical and rational—empirical, when sensuous or known by experience, and rational, when apprehended by reason as the necessary conditions of the phenomenal, as space, time and cause. We cannot even imagine body or motion without space, or succession without time; and though we can imagine an event without a cause, yet we know, by reason, that an event without a cause, is impossible, since that would require non-entity to act, or to come into being of itself, which is impossible, since it is nothing, it cannot act.

Concepts are our ideas of the combinations of the common elements of resembling phenomena, thus giving unity to separate acts of cognition and harmony to thought. Leaving out matter, considering form alone, Kant gives as pure concepts or categories of the understanding, quantity, quality, relation and modality; under quantity he gives universal, particular, individual; under quality, affirmative, negative, indefinite; under relation, categorical, hypothetical, disjunctive; under modality, problematic, assertatory, apodictic. Pure concepts are recognized as *a priori* conditions of possible experiences, whether of sense, intuition or thought. The concepts are not strictly *a priori*, but are formed to account for experiences.

Judgment is the decision that a certain relation exists between two objects of thought. The elements of a judgment, the subject and predicate, are derived from sense, or imagination, or rational intuition, called also apperception.

The stream of phenomena, always changing, the immediate object of consciousness, does not constitute the ego, or permanent subject of all these changes. The necessity of the ego, as the subject of psychical phenomena, is apprehended by rational intuition, as the identical subject, the necessary condition of these manifold experiences, otherwise memory would be impossible.

Cause is the dynamical condition of an event. How do we arrive at the judgment that every event must have a cause? It is true we can imagine an event without a cause, yet reason declares that it is no more possible for an event to happen without a cause, though it be thus pictured, than for a body to exist without space, or for succession without time, neither of which can be represented by the imagination. Reason

gives the causal judgment that every event must have a cause, by apprehending the impossibility of non-entity springing into being. The causal judgment is not based on the impotence of the imagination to picture an absolute commencement, but on the potency of the reason to apprehend the impossibility of nothing turning itself into something. The relation between cause and effect is that of *reciprocity*. Whatever the cause gives to the effect is taken from itself. An event is always an effect.

How does Kant account for the judgment that a cause is the necessary condition of an event? He says: "Our conception of the relation of all knowledge to its object contains something of necessity, the object being looked upon as that which prevents our knowledge from being determined at haphazard. . . . It is clear also that, as we can only deal with the manifold in our representations, and as the x , (the object), corresponding to them, if it is something different from all our representations, is really nothing to us, *it is clear*, I say, that the unity, necessitated by an object, cannot be anything but the formal unity of our consciousness in the synthesis of the manifold in our representations." That is the very thing that is *not* clear. It is truly wonderful that the object corresponding to our representations can have no interest to a philosopher. Ten thousand people witness the same thing, say the ascent of a balloon. Can the unity of each spectator's representations, or the common agreement, as to the object seen, be accounted for by the unity of a single consciousness or of their collective consciousness? It is evidently explained by the one object at which they are all gazing. The appearance has a double cause, for any spectator—first, the object which reflects light to his eye, causing a sensation; secondly the representation of the cause of the sensation as pictured by the imagination of the spectator. The appearance, essentially the same to all the spectators, is accepted by them, as the object itself, as known to sight; but really, it is a picture of what they infer to be true of the object.

Idealism holds good for the picture but not for the objective cause. Cause is something more than the formal unity of our consciousness; it is dynamic; its very essence is energy; it is the necessary condition of every event; it is not explained

by the synthesis of the manifold in consciousness, or by the uniformity of antecedent and consequent, as for example in the succession of day and night, or of the phases of the moon, or of the change of seasons. It is supplied to thought by reason, which sees *the impossibility of nothing springing into being*.

The laws of nature are something more than the laws of man's understanding; but Kant says: "However exaggerated therefore and absurd it may sound that the understanding is in itself the source of the laws of nature, and of its formal unity, such a statement is nevertheless correct and in accordance with experience." Were not the planets kept in their orbits, according to the laws of nature, before the existence of man on the earth?

We have impressions or sensations, not produced but known by experience, not produced by ourselves, for we are passive in sensation, which are consequently excited in us by foreign causes. The nature of these causes we interpret and represent as phenomena, which are, therefore, pictures of what we know or believe respecting external objects. These objects are not absolutely unknown, but are known more or less perfectly by their pictures—the phenomena. The conceptions of space and time are the necessary forms of phenomena; but space and time themselves are not conceptions but necessary conditions of the objects represented by the phenomena. The conception of cause is necessary to our understanding of an event; but cause itself is the necessary condition of the event. Kant asks: "How are synthetic judgments, *a priori*, possible?" The answer is, reason apprehends the impossibility of facts without conditions, that is, the necessity of conditions as the ground of the facts. That the *conceptions* of space and time are mere forms of sensuous thought in which phenomena are arranged is certainly true; but antecedent to the phenomena, we have sensations, the raw material out of which the phenomena are constructed; these sensations have causes, the causes are not non-entities but real things, and real prior to their acts on us. Now to say that these causes are not real things, at least not real till they act on us, that they do not exist in space and time, is to dogmatize, not to philosophize. This *cause* of sensation, Kant himself was constrained to postulate,

calling it *the thing in itself*, or the *noumenon*, in distinction from the phenomenal appearance, designating it by *x*, as the unknown, saying, "if it is something different from all our representations, it is really nothing to us." But is not this the thing of interest in philosophy, the real object of our quest, the object of which the phenomenon is a representation, though doubtless a partial and imperfect picture. The phenomena of sight are, therefore, the pictured knowledge of the objects, and phenomena of the senses in general are related to the objects as their representatives, adequate only to a certain degree. Likewise the ego is the *noumenon*, or the *x*, the essential condition of subjective phenomena.

It will not be necessary to follow, in all its details, the *Critique*, the great work of Kant, which is eminently worthy of the most careful consideration of every thinker in philosophy; but we shall content ourselves, by calling attention to his so-called *antinomies* of the pure reason, and his criticisms of the theoretical proofs of the existence of God, the freedom of the will, and the immortality of the soul. In regard to the antinomies, that is, that two contradictory propositions may both be proved true by reasoning, as Kant maintains, may be shown to be false. Let us take two truths, both true by hypothesis, that is, both true in fact, and suppose them to conflict, which means that the truth of either involves the falsity of the other; then each is both true and false at the same time, and taking in the same sense, which is self-destructive and impossible. It therefore follows that all truths exist in harmony. This is an intuition of reason. Furthermore it may be said that no two demonstrations can clash, that is, be mutually destructive, for a demonstration is the logical proof of a proposition from true premises. Kant claims to prove both of the following propositions:

1. *The world has a beginning in time and is limited in space.*
2. *The world has no beginning in time and no limit in space.*

Evidently, these propositions cannot both be proved true, and there must be some flaw in Kant's demonstration. Logical reasoning from true premises cannot involve error, that is, if the premises are true and the reasoning logical, the conclusion must be true. Thus we may know the unsound-

ness of Kant's reasoning without examining his argument.

What Kant intended to teach by these antinomies was, not that two conflictive propositions could both be proved true in any legitimate application of reason in the field of experience, but that these contradictories would result whenever we ventured with speculative reason beyond the limits of experience; and that though God, freedom and immortality could not be theoretically proved, neither can they be theoretically disproved, yet he vindicated these great objects of belief within the sphere of practical reason, which shows, not what we must accept as a matter of demonstration, but what we ought to believe as helpful guides to a moral life. It is, however, questionable whether Kant has shown the impossibility of proving these great doctrines by speculative reasoning. We shall see.

The usual proofs of the existence of God may be classified as the *Ontological*, the *Cosmological*, the *Physico-Theological*.

Kant's criticism of the Ontological proof as formulated by Descartes, may be regarded as conclusive. The mere fact that we have a conception of a perfect being, together with the fact that existence is necessary to perfection, is no proof that such a being exists. Descartes himself seemed to have a doubt of its validity, as we infer from the fact that he attempted to strengthen the argument, by saying that the idea of a perfect being is too great for us to form, and hence that it must have been formed within us by this perfect being himself, and that, therefore, this perfect being actually exists. We certainly can form the idea of a more perfect being than ourselves, and what is the limit to the degree of perfection of the idea which we can form? Granting the existence of an unconditioned being, still the necessity of our idea of that being is not unconditioned. The fact of the necessity of the existence of the three angles of a triangle, and that their sum is equal to two right angles, is not absolute, but conditioned on the existence of the triangle. To accept the triangle and to reject the three angles is contradictory, but to reject the triangle as well as the angles is not contradictory, but is simply error.

The same thing applies to the concept of an absolutely necessary being. Remove his existence, or rather, if his existence be not assumed, his perfection is not implied as

necessary. The only way to evade this is to say that the absolute being cannot be removed; but this is what Kant calls in question, saying it is the very thing to be proved, rightly declaring that the so-called *Ontological proof* is no demonstration of the existence of God.

Kant now takes up the *Cosmologic* proof of the existence of God, and attempts to show its fallacy. He states the argument thus: "If there exists anything, there must exist an absolutely necessary being. Now I, at least, exist; therefore there exists an absolutely necessary Being." With regard to this, Kant says: "This proof therefore begins with experience, and is not entirely *a priori*, or ontological; and as the object of all possible experience is called the world, this proof is called the *cosmological proof*. As it takes no account of any peculiar property of the objects of experience, by which this world of ours may differ from any other possible world, it is distinguished in its name. It also is distinguished from the physico-theological proof, which employs as arguments, observations of the peculiar property of this our world of sense."

"In order to have a secure foundation, this proof takes its stand on experience, and pretends to be different from the ontological proof, which places its whole confidence in pure concepts *a priori* only. The cosmological proof, however, uses that experience only in order to make one step, namely, to the existence of a necessary Being in general. What properties that Being may have, can never be learnt from the empirical argument, and for that purpose, reason takes leave of it altogether, and tries to find out, from among concepts only, what properties an absolutely necessary Being ought to possess, *i. e.*, which among all possible things contains in itself, the requisite conditions of absolute necessity. This requisite is believed by reason to exist in the concept of an *ens realissimum* only, and reason concludes, at once, that this must be the absolutely necessary Being. In this conclusion it is simply assumed that a concept of a being of the highest reality is perfectly adequate to the concept of absolute necessity in existence; so that the former might be concluded from the latter. This is the same proposition as that maintained in the ontological argument, and is simply taken over into the cosmological proof, nay made its foundation, although the intention was to avoid it."

The cosmological proof claims more than is warranted when it says that the existence of the universe is proof of the absolute necessity of an eternal cause. The cause is conditionally necessary; that is, necessary as the condition of the universe; it is not known to be absolutely necessary; for, we can conceive of its non-existence, then the universe would be non-existent; but the universe exists; therefore, the cause of the universe is actual, and this cause is either the first cause or the effect of preceding causes. These causes cannot go back in an infinite series, which would never end; nor in the direct order could it ever reach the present. The series, traced back, must therefore reach an end or first cause. Now this first cause must be eternal, otherwise there never would have been anything, for non-entity can not jump into being. The first cause is, therefore, conditionally necessary and actual, and is adequate to the production of the universe, and is called *God*, the actuality of whose existence we know, its mystery is beyond our reach. But the actuality of the first cause and its adequacy to the production of the universe sufficeth for reason; it is open to faith to believe the first cause absolute.

We are, therefore, warranted in inferring that the present state of the universe is proof of a series of past events connected by the law of causality, indefinite, though not infinite, in extent, terminating in a head or first cause, who is unconditioned and eternal. Why is not the series infinite in extent? There are two reasons why: First, though every event seems to be explained by the preceding cause, there is always left one thing unexplained, however far back we may trace the series—the cause of the last event; explained—hence the whole series is without explanation. Secondly, the end of an infinite series can never be reached, eternity itself would not suffice; for it has not end. Then as the reverse order, or order backward, would never cease, the direct order, or order forward, could never reach the present. The series, therefore, has an end, or in the direct order, a beginning. Now this end in the reverse order, or the beginning in the direct order, is rationally apprehended, not empirically known, for then it would require explanation. As not dependent on any thing antecedent, it is unconditioned; it is eternal, else it jumped from non-entity into being,

which is impossible. This first cause is therefore conditionally necessary, that is, necessary on the assumption that the universe is, which we know to be a fact. We go beyond our warrant when we say that the first cause is absolutely necessary; for we do not know that, and we can even conceive of its non-existence; but then if that were true, the universe would be non-existent, which is not the case; therefore, the first cause is actual. As the first cause, it is adequate to the production of the universe, that is, contains, within itself, everything of power, wisdom and goodness requisite for the execution of the mighty work of creation. How God can be, whether he is absolutely necessary or not, reason does not inform us; but that God, the first cause, transcendent in power, wisdom and goodness, actually exists, we may know with the full assurance of certainty; and that is sufficient. The cosmological proof, however, does not deny any perfection to God.

Space will not allow us to follow, in the details of his criticisms of the physico-theologico proof of the existence of God, but refer our readers to the Critique itself, quoting, however, three sentences: "The utmost, therefore, that could be established by such a proof, would be an *architect of the world*, always very much hampered by the material with which he has to work, not a *creator* to whose idea everything is subject.

. . . Those who adopt the physico-theological argument have no reason to be so very coy towards the transcendental mode of argument, and with the conceit of enlightened observers of nature, to look down upon such arguments as the cobwebs of dark speculators. . . The physico-theological proof rests on the cosmological and the cosmological on the ontological proof of the existence of one original Being as the Supreme Being." Though Kant denies the validity of the theoretical argument, yet he grants that practically we may act upon the conclusions as true. The cosmological argument, however, and the physico-theological based upon it, hold good for all that is required, but render themselves open to criticism, by claiming, according to the presupposed necessities of preconceived opinions, more than the premises logically support.

As to the freedom of the will, Kant accepts the fact, though denying the validity of its theoretical proof. It may

be said, however, that we are conscious of activity in volition, not of passive determination. The motives are reasons on account of which *we act*, and that without constraint, yet not without solicitation. The volitions, as events, are caused; but the mind which causes them is not an event, but a being existing at the moment of volition, not then requiring a cause. If it is inquired what made the mind make the volition, the reply is, it was not made to make it, but made it freely, in view of motives as reasons, yet not compelled by them as causes. We believe ourselves free, and not compelled by irresistible influences, and hence the explanation of the phenomena of conscience, approving the right and condemning the wrong. The consciousness of effort in volition proves that we are not passive but active in willing.

Likewise Kant admits the fact of immortality, though denying the validity of its proof. As our thoughts cannot be explained by material agencies we refer them to mind. Matter and mind, as species of the common genus, substance, the ground of union of body and soul, are united in life and separated at death. As thought can not be explained by matter, it is referred to mind or spirit, as its noumenon or necessary condition. Death the dissolution of the union of soul and body does not imply the annihilation of either, and we have no reason to suppose that the soul becomes extinct at death, but rather that it survives in an eternal state. But we must take leave of Kant's immortal work, the *Critique of the Pure Reason*.

In his *Critique of the Practical Reason*, Kant shows that various principles, empirically determined, serve as guides to the will. These principles are subjective, if the condition holds only for the will of the subject, but objective if they hold for all rational beings.

Kant says: "It is a matter for surprise that men of intelligence should imagine that a real distinction may be drawn between the lower and higher faculty of desire on the ground that some ideas which are associated with the feelings of pleasure have their source in sense and others in understanding." The distinction is not drawn between the lower and higher *faculty* of desire but between the lower and higher

objects of desire. Sense and understanding are not faculties of desire, but they furnish objects of desire, some of which are more worthy to be desired than others.

The desire for happiness Kant holds to be the usual subjective condition of individual action, but will not serve for a practical, universal guide. Kant, however, does not recognize any distinction between higher and lower forms of pleasure; for he says: "The feeling of pleasure, which is the real motive by which the will is determined to act, is always the same in kind, not only because it can be known only empirically, but because in every desire the same vital energy is always expressed. The only difference between pleasures is, therefore, one of degree." The will, as a faculty, is not determined by motive, but the ego itself exerts its power of choice and determines its own volitions in view of the motive which is a reason not a cause. Again, the desire for pleasure is not the only motive for action. Conscience has a voice, which is often heard and obeyed. Suppose that in desire the same vital energy is always expressed, it does not follow that the objects of desire are always the same in quality, or that one ought not to be preferred to another. Worthiness of character is the supreme subjective object of desire, and God the objective; these are the ultimate good.

Kant teaches that the *Practical Reason* gives us *God*, *freedom* and *immortality*, though the *Pure Reason* fails to demonstrate their reality. In this, the practical reason must be our guide.

Self-love cannot be a practical law, for the motive is subjective and empirical; but the supreme law of practical reason, of which we are primarily and directly conscious, declares: "So act that the maxims of your will may be in perfect harmony with a universal system of laws." Freedom is the *ratio essendi* of the moral law, but the moral law is the *ratio cognoscendi* of freedom.

Virtue is the supreme good. The will to be virtuous is the chief moral excellence. Not only perfection, but happiness, even continued happiness, is a legitimate object of desire. The will is to be disciplined and confirmed in its desire for perfect moral excellence, which it is needful to manifest in conduct, habit and character; but as this work can never be completed in this life, "the highest good is,

therefore, practically possible, only if we presuppose the immortality of the soul." Immortality, therefore, as the necessary condition for continued moral progress, and for the unceasing enjoyment which springs from advancement towards perfection, may be accepted as a doctrine warranted by the practical reason.

As to the existence of God, Kant says: "The moral law leads us to postulate, not only the immortality of the soul, but the existence of God. For it shows us how happiness, in proportion to morality, which is the second element of the highest good, is possible, and to postulate it for reasons as perfectly disinterested as in the former case. This second postulate of the existence of God rests upon the necessity of presupposing the existence of a cause adequate to the effect which has to be explained."

These three postulates of practical reason, God, freedom, and immortality, are, therefore, not theoretical dogmas, but are presuppositions which are practically necessary. They follow, as corollaries, from the intuition of the moral law as the supreme rule of conduct.

CHAPTER XXI

Fichte, Jacobi, Schelling

1. *Fichte* (1762-1814). Johann Gottlieb Fichte was born in Rammenau, a village in Upper Lusatia. Before going to school, he was taught many things by his father, which he eagerly listened to and readily assimilated, as he was precocious in his mental development. His intellectual turn of mind impressed his friends and neighbors, who said, after he had reached distinction, "we always knew that Gottlieb was a remarkable boy."

He was so intelligent, and read with such an appreciation of the sense, that his father assigned to him the duty of reading the prayers for the family, and cherished the desire that he would become a minister.

His imagination was so powerfully impressed by a remarkable book called *Siegfried the Horned*, that for a time he lost interest in other things, and for neglect of duty, was severely punished. Resolving to obey, at least the spirit of the injunction, If thy right hand offend thee, cut it off and cast it from thee, he resolved to make the sacrifice, and taking the book to the river bank and after a short struggle with his affection, cast it into the stream, and gave way to his tears, as he saw it float forever beyond his reach. His father, coming up at the moment, and misunderstanding the motive of his son, chastised him unmercifully for the supposed wicked deed, an illustration of how the purest motives may be misunderstood.

Gottlieb was a favorite with the village pastor, who one day asked him how much of the last sermon he remembered, and was astonished at the accurate report he heard from the boy. Soon after this, Baron von Miltiz, who was one day at Rammenau, on a visit to Count Hoffmansegg, the lord of the village, expressed his regret that he was too late for the sermon, Sunday morning. The Count said, "It is no matter, for there is a boy in the village who can preach the sermon

from memory." Accordingly Gottlieb was sent for, and to the astonishment of the Baron, delivered the discourse in an eloquent manner.

The Baron was so impressed that he resolved to provide for his education, and accordingly took him to his castle; but the gloom of the castle depressed the spirits of the boy, and unfavorably affected his health. Sympathizing with the boy's feelings, the Baron removed him to the family of a neighboring clergyman, where he spent some of the happiest years of his life. Here he began the study of language, which he continued at the High School of Meissen and then at Schulpforte.

His life at Schulpforte was far from pleasant. His fellow students were for the most part uncongenial, and the one who especially had him in charge, was unreasonable and overbearing; but Gottlieb learned the important lesson of self-reliance.

Meeting with a copy of Robinson Crusoe, he read it with great zest, and inflamed with enthusiasm, resolved to make his abode in some island, afar off in the ocean, out of the reach of troublesome companions. Having reported his resolution to his churlish guardian, as he scorned to sneak away, he felt free to put his resolve into execution. An opportunity presenting itself, he set off for Nounberg. As he trudged on, he called to mind what he had often heard his pastor say: "It is best when about to engage in a new undertaking to ask for the blessing of God to rest on the enterprise." Kneeling by the road-side, he prayed for divine direction in his wanderings. It occurred to him, while praying, that he would never see his parents again, and that they would grieve over his loss. This he could not bear, and at once resolved to retrace his steps. On returning he was met by a party in pursuit, as his purpose to leave had been reported by the student to whose charge he had been assigned. He was taken before the Rector, and to him he so frankly related the whole matter, that he was not only forgiven, but placed in the charge of another student who treated him with so great kindness that Fichte ever after felt for him great affection.

Knowing the wishes of his parents, Fichte became a candidate for orders, but his patron dying, he abandoned all hope

of becoming a minister, and accepted the position of a tutor in a family in Zurich, Switzerland, where he remained two years, making in the meantime, the acquaintance of Johanna Rahn, a niece of Klopstock. This proved a most fortunate acquaintance for Fichte, for this lady became his wife, most devoted and helpful. While a tutor, Fichte kept a journal in which he noted the faults, not only of his pupils, but also those of their parents, which he read to them every week.

This overstrained relation of his tutorship could not endure, and it was at length broken off, much to the relief of all concerned. Fichte went to Leipzig, and engaged in giving private lessons in language and philosophy. It was in Leipzig that Fichte first became acquainted with the writings of Kant. The philosophy of Kant, especially his ethical writings, gave Fichte great satisfaction, and he characterizes this period as the happiest of his life. He writes to Kant: "To you especially I owe the declaration that I now believe, with my whole heart, in free will, and that I see that under this supposition alone can duty, virtue, and morality have any existence."

He visited Kant at Königsberg, taking with him, by way of introduction, a treatise which he had just finished, entitled *A Critique of every possible Revelation*. Kant at once recognized the value of the production, and received him warmly. Fichte was in straits for money, but Kant, who was not rich, could render him but little aid.

Fichte revised his *Critique* and published it anonymously. It gained great applause, partly by its merits, and partly, no doubt, because it was generally taken to be the work of Kant himself; but its authorship becoming known, Fichte acquired great celebrity, which secured for him the chair of philosophy in the University at Jena, one of the leading universities of Germany. Here he labored earnestly, not only for the intellectual development, but for the moral elevation of the students. The position was favorable for the calm maturing of his philosophy, and was so considered at first, by Fichte himself; but the cry of Atheism was raised against him, and the charge made that he was endeavoring to undermine the institutions of the Church. Fichte promptly resigned his position. He was called to the chair of

Let us now return to *Fichte*. Starting with the philosophy of Kant, it was almost inevitable that he would reject the noumenon, or thing in itself, as held by Kant. If the thing in itself is unknowable, why retain it, rather why not reject it altogether? And this, accordingly, Fichte did. Rejecting the noumenon, he began with something he knew without question; and what was that? Fichte answered, I know the rational principle to be true, that if anything exists, it is itself; if *A* is, then *A* is *A*, which is the highest principle, or law of identity. Since *I* know this law to be true, then *I* exist, and since *I* exist, then *I* am *I*, by the law of identity. The law of identity is the fundamental rational principle; the ego, which knows the truth of this law, is the fundamental reality, the only fact absolutely known to be, and from the ego, by the aid of the law of identity, is evolved all genuine philosophy. That external thing which seems to limit the ego, which Kant calls the noumenon, the thing in itself, *Ding an sich*, is simply the proper act of the mind, or the self-limitation of the ego. The foundation of the Fichtean philosophy is, therefore, the *ego*, which, with the law of identity, evolves, by its acts, including its self-limitations, every thing from itself.

Fichte fortified the ego, as the point of departure thus: We have conjointly the ego and an object. Which of these must be reduced to the other? If we abstract the ego, we have left the object as the essential thing, and our sensations and representations must be the products of this object; if we abstract the object, we have left the ego with its sensations and representations. The former, Fichte calls *dogmatism*, the latter *idealism*, and maintains that each is irreconcilable with the other, and that, as there is no third way, we must choose between the two. There is, however, a third way, we need not abstract either the ego or the object.

Fichte says the ego appears in consciousness; and is therefore real, while the object is a mere invention, since in consciousness we have only that which is perceived; hence dogmatism, to account for representation, must start with something not given in consciousness, that is, with assumed being, not representation, nor capable of giving representations. Idealism is, therefore, the only correct alternative, for that does not start with being of which we know nothing,

but with conscious acts of intelligence; hence intelligence is active, not passive, and there belongs to it no being, but simply acting.

But does not acting require something which acts? Can acting act? To my reason, this is impossible. Acting is acting, of course, as *A* is *A*; but acting can no more act than running can run. Acting requires a being who acts; knowing implies an ego who knows; but the knowing is not the ego, any more than running is the boy who runs; but knowing is the act of the ego, a being having personal identity, as proved by his memory of past acts.

Fichte has not shown that acting is possible without an actor, or that thinking is possible without a thinker. He has not shown that the noumenon, or thing in itself is impossible. Of course, an object known is no longer a thing in itself, but is a thing in relation to a mind that knows the thing; the phenomenon which we represent, as the appearance of the thing, is our knowledge of the thing expressed in pictorial form, and is more or less a truthful representation of that thing. The idealism of Fichte is simply hypothesis, and by no means, the most reasonable explanation of knowledge.

Let us take the out-come of Fichte's philosophy as stated by himself: "The sum total is this: There is absolutely nothing permanent, either without me or within me, but only an unceasing change. I know absolutely nothing of any existence, not even of my own. I myself know nothing, and am nothing. Images there are; they constitute all that apparently exist, and what we know of them is after the manner of images; images that pass and vanish without there being aught to witness their transition; that consist in fact of the images of images, without significance and without aim. I, myself, am one of the images; nay, I am not even thus much, but only a confused image of images. All reality is converted into a marvelous dream, without a life to dream of, and without a mind to dream; into a dream made up only of a dream of itself. Perception is a dream; thought—the source of all the existence and all the reality which I imagine to myself of my existence, of my power, of my destination—is the dream of that dream."

Fichte supposed that his view was Kantian, and that the other interpreters of Kant were mistaken when they affirmed

that Kant held that sensations must be given to the subject from some transcendental object without, as the material condition of objective reality. He says: "So long as Kant does not expressly declare that he derives sensations from an impression of some essential thing, or to use his terminology, that sensation must be explained from a transcendental object existing externally to us, so long I will not believe what these expounders tell us of Kant." But Kant emphatically rejected the Fichtean interpretation of his system which he declared presupposed something external called the *noumenon* or the *thing in itself*.

It may be true, however, that Fichte's interpretation of Kant's doctrine in regard to the thing in itself is a logical deduction from that doctrine. Kant held that the noumenon or thing in itself was unknown and unknowable. It is true that if the thing itself is entirely unrelated to us, so as in no way to affect us, we would know nothing of it, that is, it would be to us unknown and unknowable; but if it is to related to us as to give us sensations, as Kant believed to be the case, it is no longer a thing in itself, but is in relation to us. If this is true, as we have reason to believe, since sensations are not caused by ourselves, but produced in us by a foreign cause, the noumenon, now no longer regarded as a thing in itself, we know as the cause of our sensations, and the phenomenon is the graphic expression of our knowledge or belief respecting the noumenon or objective cause of our sensations. The phenomena we witness around us, on every side, are not phantoms, mere illusions of the subject, but are the appearances of real things. An idealist walking the street is suddenly encountered by a dog, which growls, barks, and bites. The philosopher perhaps swears at the dog, and kicks it, and walks on regarding the pain from the bite and the whole performance a freak of his imagination.

To continue the exposition of Fichte's philosophy, returning to his starting point: If anything is, it is itself; A is A, if A is; but that does not say that A is, nor what A is; it only says, if A is, then $A = A$. Now if I know this, I can say, with absolute certainty, that I am, which is the original real fact. Since I am, or ego is, I am I, or ego = ego. This ego is not any individual ego, but the universal ego, the universal rationality. The ego is known to be, because it is conscious

of positing itself; the ego is, therefore, the original thesis or starting point, the first principle of philosophy giving the category of *reality*. The ego, the subject of any special consciousness is, however, a unique individual ego, the original reality known.

The second fundamental principle is, *non-A* is not *A*, which supposes that *A* has been previously posited. What non-*A* is in itself, I do not yet know, I only know that it is the opposite of *A*; but *A* is posited through the ego, the only reality absolutely posited. Hence there can be an absolute opposition only to the ego, and that opposition is the non-ego. The logical law of *contradiction* is, Ego is not non-ego, or non-ego is not ego. This second principle gives the category of *negation*.

It might seem that by the law of identity we could affirm that non-ego = non-ego, and this we can indeed, if we mean by it that any non-ego is itself; but not if the two non-egos are not the same; for it will not do to say that any non-ego is any other non-ego, so that it is not safe to use the formula non-*A* = non-*A*.

The third step is to explain the reciprocal relation of the ego to the non-ego. Each seems to suppress the other. How can the ego know the non-ego? Fichte answers: the ego knows the non-ego as a hindrance or limitation of itself. In the impression of limitation, the ego seems passive and the non-ego active. But is not this non-ego identical with Kant's noumenon, or thing in itself? In one sense it is, that is, in the sense of being something, the opposite of the ego; but the non-ego is regarded differently by the two philosophers. Kant regarded it as something independent of the subject, a thing in itself, while Fichte supposed it to be the creation by the subject, made by its own act of self-limitation. We thus have the category of *limitation*. The ego and the non-ego reciprocally limit each other; hence also the categories of *quantity* and *divisibility*. The ego, the original activity, posits, in itself, a divisible non-ego, as limitations of a divisible Ego.

Can we regard the apparent objects about us as posited by the Ego? A person walking through a dark room, stumbles, unexpectedly to himself, on a chair. Did he posit the chair in the sense of creating a hindrance? Here Kant's

explanation seems better than Fichte's. The chair seemed to exist independently of the ego, and proved to be a hindrance. But Kant's theory appears also at fault. The chair was no longer a thing by itself, when the person stumbled on it, but was in sharp conflict with him, as an obstruction to his progress. Kant would say, however, all he knows is the phenomenon, the shock, the noise made, the imaginary image of what the appearance would be, if the room should be suddenly lighted. He knows also that there is an objective cause of the shock, the noise, the surprise, and the appearance, a cause no longer a thing in itself, but in decided relation to himself who ran against the chair.

We may regard the phenomena of the *reciprocal relation* of the ego and non-ego in two lights: With the conception of *cause* we posit, through the passivity of the Ego, the activity of the non-ego, as the ground of that passivity. The passivity and the activity differ in *quality*, the passivity being not simply a diminished activity of the ego. This is the view of *Dogmatic Realism*. With the conception of *substance*, we posit the passivity of the ego through its activity, by a diminished activity, as the real ground of the apparent passivity, the passivity of the ego being of the same quality as its activity, but less in quantity. The apparent passivity and the activity differ in *quantity*. This is the view of *Dogmatic Idealism*. Thus, Dogmatic Idealism, affirms that all reality of the non-ego is only the reality given to it by the ego; and Dogmatic Realism asserts that nothing can be given to the non-ego unless it be something to receive, as an independent reality, or thing in itself.

The contradiction between these views, Fichte attempted to reconcile in a new ideal synthesis, making the real ground identical with the ideal ground, by showing that the simple activity of the ego is not the ground for the reality of the non-ego, and that the simple activity of the non-ego is not the ground for the passivity of the ego. In Fichte's new ideal synthesis, he conceives that the ego meets a hindrance when its activity can be no farther extended, and is drawn back into itself, producing self-limitation. The non-ego, or what we call an external object, is the activity of the ego impinging on some inconceivable hindrance, which we represent as an object filling a portion of space.

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But what is this hindrance? Fichte's new synthesis brings us back only to what Kant called the thing in itself, but which is truly a thing in relation to us. It is not an inconceivable hindrance, as Fichte calls it, but a real object which we represent, as well as we can, in the phenomenal appearance, which with the help of the object, is a construction of our own minds, and in this phenomenal appearance lies the real truth of idealism. The appearance is ideal; the objective cause is real.

Fichte's ethical philosophy grew out of his theoretical. Moral action is a striving after ideal perfection; but as we advance the goal advances before us, and seems more remote as our vision becomes clearer. The rule, *Do that which conscience requires*, will lead us to conform our conduct to the moral order of the universe, which is the order ordained by God himself, or as Fichte conceived it, is itself God.

2. *Jacobi* (1743-1819). Friedrich Heinrich Jacobi, born at Düsseldorf, was the second son of a wealthy merchant. He was educated, according to the direction of his father, for a commercial career, partly at Düsseldorf and at Frankfurt-on-the-Main. To complete his education, he was sent to Geneva, at the age of sixteen, where he spent four years in thoughtful study, associating himself with the literary and scientific circles of the city, and enlarging his range of thought by extensive reading.

In 1763, he returned to Düsseldorf, and in the following year married and took his father's place as the head of the large commercial establishment, which he managed with great success.

He gave up his commercial career in 1770, and became a member of the council for the duchies of Juliers and Berg, and gained distinction as a financier and reformer. He continued, however, to keep up his interest in literature and philosophy, and his home was the center of a circle of friends distinguished for literary ability.

Some of his earliest writings, both on Economics and Philosophy, were contributions to the *Mercury*, a new literary journal projected by himself and Wieland, with the aid of other friends. Among his contributions to this journal may be mentioned, the *Correspondence of Allwell*, a com-

bination of fiction and philosophy, and *Waldemar*, a philosophic novel, which exhibits Jacobi's peculiar method of philosophizing, by a genial speculation, in a pleasing pictorial manner.

Lessing, in a conversation with Jacobi, had avowed that he knew no philosophy in the true sense of the term, save Spinoza's, and this remark led Jacobi to make a thorough study of Spinoza's works. Making the statement of Lessing concerning Spinoza public, drew Jacobi into controversy with Moses Mendelssohn, who however, showed but slight acquaintance with Spinoza's philosophy. In his published letters on Spinoza's philosophy, Jacobi expressed decided objections to a demonstrated philosophy, but this brought upon him the ridicule of the Berlin clique of which Mendelssohn was the head. He was charged with being an enemy to reason, an advocate of blind faith, a fanatic, and probably a Jesuit in disguise. To vindicate himself, he wrote in 1787, a dialogue entitled *David Hume, or Faith, Idealism, and Realism*, in which he develops his principle of faith, or immediate knowledge. The truth, however, is faith is not knowledge, though based on knowledge.

In 1804, Jacobi was called to the new Academy of Sciences in Munich, and in 1807, he was chosen president of the Institution, which position he held till his death in 1819.

Jacobi directed his polemic against the doctrine that all knowledge is mediate, or that philosophy is demonstrable throughout. He maintained that Spinozism is fatalism and atheism; it is fatalism, because it asserts that the human will falsely holds itself free, since freedom is a delusion, as all events occur from necessity according to invariable law; it is atheism, because it holds that the cause of the world is not a being endowed with reason and will, not a free creator and governor of the world, not a God having great plans to accomplish and benevolent ends to realize by the employment of wise means, but that nature is the only God, working blindly according to the law of strict necessity.

Fatalism and atheism, Jacobi endeavored to show, are the necessary consequences of the attempt to construct a strictly demonstrated philosophy. To understand a thing is to explain it by its cause. We go back, in a regress order, from the conditioned to the condition, which is also condi-

tioned, and so on. If the series has no end, though we seem to account for everything, yet there is always one thing left unexplained, the condition of the last conditioned that was explained, and therefore nothing is absolutely explained; but we simply assume an endless chain in which each link follows from the preceding by inexorable necessity, in which there is neither free will, nor a free personal God. If we pause anywhere, the last condition is not explained; if we accept this last condition as truly ultimate, it is unconditioned, absolute or infinite, we accept it without explanation, and the so-called demonstrated philosophy fails to be demonstrative. Jacobi, therefore held that Spinoza's philosophy is the only demonstrated philosophy, but demonstrated only on the assumption of an endless chain, which with its necessitated links, involves both fatalism and atheism. Spinoza, however, attempted to escape atheism by identifying God with nature, as in his oft repeated expression, *Deus vel Natura*, which is the expression for pantheism.

Jacobi's philosophy goes back, not in an infinite series, but to an *Unconditioned Cause*, the *First Cause*, or *God*, which he accepted by faith. He, however, explains that his faith is not a blind faith, resting on external authority, but a faith having its root in feeling, not in sensation so-called, which has physical conditions, but in pure feeling, through reason, or *rational intuition*. Jacobi's faith is rational intuition. This rational intuition is not a logical consequent deduced from premises, after the syllogistic fashion, but is the logical antecedent, presupposition or necessary condition of all rational knowledge, and is apprehended, at once, by the direct insight of the reason, whose very essence, according to Jacobi, is faith, or instinctive feeling, but is truly rational insight. Jacobi, however, resolved all cognition ultimately into feeling.

Jacobi complained of the increasing tendency, in the philosophic schools, since the time of Aristotle, to subordinate reason to the understanding, to subject immediate knowledge to mediate, to absorb intuitive knowledge by demonstrative. He opposed Kant's theory that space and time are given *a priori* as form of external perception, in which phenomena, mere determinations of our minds, seem to be located, though they have no external existence, holding

that Kant was illogical in postulating the thing in itself, of which, by his own confession, he knew nothing, giving, in this respect, the palm to Fichte.

It is true that phenomena have no existence apart from mind, for they are mental pictures, yet as held by Jacobi, they are revelations of objective facts, representing as truly as pictures can, our discoveries or beliefs concerning external things.

Jacobi admitted that Kant did good practical work in his critique of the understanding, in showing its insufficiency to know the supersensible, thus destroying a delusive error, and clearing the way for genuine rational intuition, the ground of valid faith in God and in the reality of the external world. In this respect, the philosophy of Jacobi passed beyond that of Kant.

But Jacobi was not in sympathy with the atheistic tendencies of the post-Kantian philosophy. Kant held firmly to his belief in God, freedom, and immortality, as necessary postulates of practical reason. Rational intuition was, we may believe, the foundation of Kant's faith in these realities, though he failed clearly to apprehend its nature; if so, he was in practical, though not in theoretical agreement with Jacobi. Fichte makes the living working order itself, without substance, to be God, an inverted Spinozism, which makes the one sole substance to be God, who thus lives and works, though blindly, according to inherent immutable law.

In Jacobi's philosophy, the understanding and the feelings are strictly separated. Jacobi said: "There is light in my heart, but it goes out whenever I attempt to bring it into the understanding." Jacobi, in order to escape this contradiction, brought in immediate knowledge, but this will not answer for conditioned things, but only for the condition, and then only when the condition is a rational principle. But will this hold good? Some philosophers say not, since it is not divorced from all other knowledge; yet it will hold; for it is not deduced from other knowledge as a logical consequent, but the other knowledge being given, it is apprehended immediately by reason as the necessary condition, or logical antecedent. Thus we know that every event requires a cause, and knowing a particular event, without knowing *the* cause, we know that it has *a* cause.

3. *Schelling* (1775-1854). Friedrich Wilhelm Joseph Von Schelling was born at Leonberg in Würtemberg. His father, an excellent Oriental scholar, was chaplain and professor in a Seminary at Bebenhausen, for the preparatory training of Theological Students. At his home, Schelling received his early training, and showed great quickness of intellect. In his tenth year, he was sent to a Latin school at Nürtingen, and such was his precocity, that he acquired, in two years, all he could receive from that school, and returning home, was permitted to study with the students of the Seminary.

In 1790, though three years under age, he was, by special permission, admitted to the Theological school at Tübingen, where he had Hegel for a fellow student. He graduated in 1792, presenting a Latin thesis. Continuing his Theological and Philosophical studies, and his literary activity, he received in 1795, his Theological degree, presenting a thesis entitled, *De Marcione Paulinarum Epistolarum Emendatore*.

From 1792 to 1795, after graduating and before receiving his degree, he had studied the works of both Kant and Fichte, and with his usual promptness, and perhaps with undue haste, published the results of his studies in an essay as early as 1794. This essay was followed, in 1795, by a more elaborate attempt to combine Fichte's system with Spinoza's, thus giving it a more objective form.

For two years he was tutor and companion of two youths of noble family, at Leipsic, contributing articles, in the meantime, to Fichte's Philosophical Journal, besides engaging ardently in the study of medicine and physical science.

In 1798, Schelling was called, as professor extraordinary of philosophy, to the University at Jena, and became a co-laborer with Fichte; and after Fichte resigned his position at Jena, Schelling was appointed to fill the vacant chair, and this position he held till 1803. His lectures were very attractive, and he assumed a more independent position. While holding this professorship, he published several works, and made numerous contributions to various Literary and Scientific Journals. In connection with Hegel, whom he had invited to Jena in 1801, he edited a Philosophical Journal, thus raising the university of Jena to the height of its reputation, as a philosophic center.

Schelling was on friendly terms with Goethe, who was pleased with the naturalistic and picturesque turn he gave to philosophy; and he was hailed as a powerful ally, by the representatives of the Romantic School.

With August Wilhelm Schlegel and his wife, Caroline, a gifted woman, Schelling was on terms of intimate friendship. Caroline afterwards became his wife, and with his marriage, on account of impropriety, his life at Jena came to an end.

He was called to Würzburg in 1803, as professor of Naturphilosophie, where he remained till 1806, when he removed to Munich, where his positions as state official, associate in the Academy of Science, secretary of the Academy of Arts and afterwards that of Science, requiring little work, gave him abundant leisure for quiet study and literary work. While holding these positions, he lectured at Stuttgart and at Erlangen. His wife, Caroline, having died, he married Pauline Gotter, who was a devoted and helpful companion.

In these years at Würzburg, during Hegel's philosophical supremacy, Schelling was comparatively quiet; but after the death of Hegel in 1831, Schelling made public his antagonism to the Hegelian philosophy, stimulated no doubt by a remembrance of some sharp criticisms which Hegel had made on Schelling's philosophy.

In 1841, Schelling was appointed a privy counsellor, and made a member of the Berlin Academy, which gave him the right to lecture in the University. His opening lecture drew an appreciative crowd, and thus again Schelling appeared as the first figure in philosophy but in this course, nothing new of special interest was developed.

After the death of Schelling in 1854, his sons issued three volumes of his works—two on the *Philosophy of Mythology*, and one on the *Philosophy of Revelation*.

Schelling's philosophy is not a complete coherent system, consistent throughout, but rather a succession of stages without organic union, corresponding to six different periods of his life, but each displaying the peculiar bent of his genius.

In the *first period*, Schelling's point of view is that of Fichte's. His essay *On the Possibility of a Form of Philosophy* shows the necessity of the supreme principle—*The Law of Identity*, first propounded by Fichte; and his essay *On the*

Ego show that only in the *Ego* can be found the ultimate ground of knowledge, reaching as Schelling believes, the conclusion that Idealism is the only true philosophy.

In the *second period*, Schelling distinguishes between the philosophy of nature and the philosophy of mind. This stage of his thinking is found in *A System of Natural Philosophy* published in 1799, and in the *Journal of Speculative Physics* for 1800, 1801, also in *A System of Transcendental Idealism* published in 1800.

In the *third period*, Schelling returns to Spinoza, and takes his stand on the indifference of the ideal and real or of the subject and object. His chief writings of this period are: *Exposition of my System of Philosophy*; *Ideas for a Philosophy of Nature*; a dialogue, *Bruno or the Divine*, and the *Natural Principle of Things*; the *Method of Academical Study*; articles in the *New Journal of Speculative Physics*.

In the *fourth period*, Schelling inclines to *Mysticism and Neo-Platonism*. In this period, his writings are: *Philosophy and Religion*, *Exposition of the True Relation of the Philosophy of Nature and the Improved Theory of Fichte*, and articles in the *Medical Journal*.

In the *fifth period*, Schelling attempted a *Theogony and Cosmogony* after the manner of *Jacob Boehme*.

In the *sixth period*, Schelling published lectures *On the Divinities of Samothrace*; a *Critical Preface to Becker's Translation of a Preface of Cousin*, in which he styles his philosophy. *Positive Philosophy*, or the *Philosophy of Mythology and Revelation*.

The writings of Schelling are not self-consistent. In fact, Fichte said Schelling was muddled. He was imaginative, vacillating and inconsistent, though he had great influence when at the height of his popularity.

CHAPTER XXII

Hegel

Hegel (1770-1831). George Wilhelm Friedrich Hegel was born at Stuttgart; and in the Gymnasium of the same place he received his preparation for the University.

While in the gymnasium, he kept, for some time, a diary in which he recorded matters which interested him. He translated the *Antigone* and other Greek plays, and made extracts from the books he studied, and from current publications and standard works, arranging them under alphabetic heads. Not only did he acquire from others, but he wrote many essays displaying original powers, and showing his admiration for the ancient classics. He thus combined the two characteristics of a great mind—the power of acquisition and of origination.

He entered the University of Tübingen, at the age of eighteen, as a student of Theology; but he manifested little interest in either the theology or the philosophy taught at the university, preferring to spend his time reading the classics. In due time he took his degree, and received his certificate crediting him with good abilities, average knowledge and industry, but deficiency in philosophy. Hegel was, however, all the time, laying up stores of knowledge of the ancient world, and gathering a mass of miscellaneous information which later served him good purpose, not only for general utility, but also for application to philosophy. He also gained much from conversation with his associates, but especially with Hölderlin and Schelling.

After his university course, Hegel was, for three years, a tutor in the family of M. Steiger, whose summer residence was Tschugg and winter residence Berne. Hegel made but few acquaintances in Berne, yet he systematically studied its fiscal system; he also devoted earnest study to Christianity and wrote a life of Jesus, in whom he found a noble spirit, calm in the consciousness of his oneness of spirit with God.

While engaged with these studies, he kept up a correspondence with Hölderlin and Schelling. He was stimulated by Schelling, whose brilliant genius was gaining him fame, to direct his attention more especially to philosophy, and was thus kept abreast in the latest speculations, especially in Kantian philosophy. By the acquisitions thus gained, Hegel's mind was enriched and furnished with material for future use.

In 1797, through the influence of his friend, Hölderlin, Hegel became tutor in the family of a merchant in Frankfort, and this position was favorable for study, and brought him into intercourse with intellectual society. With Hölderlin he renewed his interest in Greek literature and with Sinclair, a disciple of Fichte, he revived his interest in philosophy, as advanced by Fichte's speculations. While in Frankfort, he also turned his attention to Economics and the science of Government, and on these subjects wrote some able essays. He attached great importance to religious questions, and emphasized the distinction between a religion enforced by authority, and the natural religious development of a people.

It was while at Frankfort that the philosophic ideas of Hegel were first reduced to systematic form. He corresponded with Schelling in reference to his making. Bamberg, a place of residence; but the result of the correspondence was an invitation to come to Jena as an assistant of Schelling in philosophy. The two philosophers published conjointly a *Critical Philosophical Journal*, for which Hegel wrote the majority of the articles.

The subject of his dissertation, which qualified him for the position of Privatdocent was *De Orbitis Planetarum*, in which he expressed doubts in regard to the existence of a planet between the orbits of Mars and that of Jupiter, and this was afterwards made the ground of attack on his *a priori* philosophy, as a method for the deduction of facts.

At Jena, Hegel delivered lectures on philosophy, logic and mathematics. After Schelling left Jena in 1803, Hegel had the field of philosophy to himself. His lectures though expressing deep thought were too obscure to be popular. His view of art was, that it should express the national taste in regard to beauty, and as the expression of the general sense of beauty, it is transmitted enriched from generation to generation.

Napoleon's victory at Jena disturbed him in his philosophical labors, and threw him out of employment; but he was offered the position of editor of the *Bamberger Zeitung*, which he accepted, and filled the place for eighteen months, when he was appointed to the rectorship of the Gymnasium at Nuremberg.

In 1811, Hegel married Marie Von Tucher, who proved to be an excellent wife. In 1816, he came to Heidelberg, as professor of Philosophy, where he published the *Encyclopedia of the philosophical sciences*. After two years' service at Heidelberg, Hegel accepted the chair of philosophy at Berlin, where he reached the zenith of his fame. The conciliatory character of his doctrines, supporting as they did both the church and the state, gave them great popularity, and his system was hailed as the national philosophy.

Locke, Berkeley, Hume, form a chain of three links. Locke, the first and original, Berkeley, the intermediate link, Hume the terminal and logical outcome, constitute a natural development. Hume awoke Kant from his dogmatic slumbers. In like manner, Kant, Fichte, Schelling, Hegel, constitute a chain of four links. The two intermediate links, Fichte and Schelling, connect Hegel with Kant, and to them Hegel is truly indebted; but it is from Kant that he derives his inspiration.

Hegel's success was especially due to three facts: he had made a long and industrious preparation; he had great capacity for acquisition; he had strong powers of origination.

The following is the list of his principal works, in seventeen volumes: Vol. 1, *Minor Articles*; 2, *Phenomenology*; 3-5, *Logic*; 6, 7, *Encyclopedia*; 8, *Philosophy of Rights*; 9, *Philosophy of History*; 10, *Aesthetics*; 11, 12, *Philosophy of Religion*; 13-15, *History of Philosophy*; 16, 17, *Miscellanies*.

The *Phenomenology* and the *Logic* are the most important of Hegel's works, though the *Philosophy of History* is the most readable and interesting. The *Phenomenology* was published in 1807, and the *Logic* six years later.

The *Phenomenology* develops the concept, and by analysis and abstraction, attempts to reach the *Absolute* in which the *All* is reduced to the *One*. The *Logic*, beginning with the

Absolute, reverses the process, and by continued synthesis, develops the One into the All. Individual forms of concrete existence are regarded as subjective, or phenomenal manifestations of the Absolute.

The perception of a tree, for example, is not immediate, since the perception cannot exist except through the intervention of the tree or object perceived, nor likewise save through the intervention of the ego or subject perceiving, but the ego and the tree are, according to Hegel, merely phenomenal manifestations of the Absolute. The idea of this tree is, however, individual. Ideas of other trees can, in like manner, be formed.

Now, dropping from the ideas the individual peculiarities, retaining what is common, we pass to the concept tree, which is equally applicable to every tree, since the individual marks, which would exclude any tree, have been dropped. We now have the concept of the class tree. Other concepts, besides that of tree, can, in like manner, be formed, and taken in along with the concept tree, if we drop the peculiar characteristics of each concept, retaining only what is common to all the concepts; and so on, we can rise, till we reach the highest genus, embracing every actual and possible concept, and applicable to any class or individual object. What then have we? Evidently Being; not Being embraces both extent and content, but only content. What is its content? Hegel answers—*Nothing*; Being = Nothing. The true answer, however, is *existence*, that is the universal content of Being, and that only.

Hegel, however, deals not especially with the extent of a class, but with content, the concept, the idea in the Platonic sense, and by the dialectical method; his philosophy is *Idealism*. To him, as to Plato, the concrete individual object, or the class, the whole collection of individuals to which the concept is applicable, or the extent of the concept, is of little account, save as specimens, for these are transitory and will pass away. The individual diagram of a triangle, for example, drawn on paper or on a black-board, may be erased, and another, or many others drawn instead, which, in like manner, may be erased; but the idea, the concept triangle, abides; and it is with concepts

that philosophy deals. Nature herself follows this method in her carefulness for the species and carelessness for the individual:

“So careful of the type she seems,
So careless of the single life.”

It is, however, due that philosophy give some account of the individual, and this it does by seeing in it the concept, the idea embodied, whatever individual peculiarities, or accidents, it may contain.

In rising from the individual, a tree for example, to Being, according to the Hegelian method, we neglected the extent, that is, individuals and classes, and considered only the content, the concept, the common attributes, which become less and less, as we ascend, till we reach Being, the highest genus, when the content is a *minimum*, simply *Existence*, but not *Nothing*.

To neglect extent, or to consider only content, is however, an arbitrary proceeding. We should consider both kinds of quantity—extent and content. Then, in ascending from an individual to its species or class, reducing the idea of the individual to the concept, or common content of the class, and then passing from the species to the genus, and so on, we continually increase the extent and diminish the content, till reaching Being, the highest genus, which is a maximum in extent, since it embraces every object in the universe, but is a minimum in content, since its only common attribute is existence.

Does Being, then, equal Nothing? No; it includes in its extent every actual object in the universe, and in its content, existence, their common content or attribute. It is, however, to be understood that Being in its extent, contains all objects, and in its content, every actual attribute, not as common to all Being, but as found somewhere in the subdivisions of its extent.

We can now begin with Being, including all reality, and descend by the division of its extent, adding the proper content to the several divisions and sub-divisions, till we reach individuals, which are *minima* in extent, but *maxima* in content. The law of the relation of the content to the extent is: *The content varies inversely as the extent*. Any division between an individual and Being is neither a maxi-

mum nor a minimum, either as to extent or content. We *divide* extent, and *analyze* content. Any subdivision can be defined by referring it to its class and designating it by its characteristic attribute. Being cannot be defined, its extent can be divided, but its content cannot be analyzed; an individual can be defined, its extent cannot be divided, but its content can be analyzed; any intermediate class, between the Individual and Being, can be defined, its extent divided and its content analyzed. The name of any division *denotes* its extent and *connotes* its content.

What is the nature of Being? It is not necessarily a particular thing, as this tree, that horse, John Brown; but all these agree in existing, in being, which, as common to all, we can abstract from each of these objects. The *being* is no particular thing, and that is what Hegel meant when he said being is no thing; that is, Being = Nothing; but certainly when we say this tree *is*, that horse *is*, John Brown *is*, the *is*, common to all these statements, evidently has meaning. Is the meaning of *is* nothing? It is truly no concrete thing taken as a whole; but we call it Being, or existence; it is the *actuality* of these objects, as opposed to their *non-existence*.

Being, then, is existence, not a determinate existence, as tree, horse, man, but it has a real meaning, or has objective reality in everything, as their common attribute, and though, in thought, it can be abstracted from any or all determinate things, and has no objective existence apart from determinate things, yet it has subjective existence as the *idea* of the common content of all existing things. Its objective reality is maintained, not by its own energy, but by the energy of the determinate things of which it is the common attribute; as subjective idea, it is formed, and may be kept indefinitely in mind, by thought. Hence, Being, the highest genus, has existence, objective as the common attribute of things, or subjective as the idea of this common attribute, and is kept in existence, in the one case, by the energy of the objects, and in the other, by the energy of thought. The First Cause, as eternal energy, has eternal Being, and is the Ultimate Reality.

The Logic of Hegel, descending by division, from Being, the highest genus, attempts to develop every existing thing.

Hegel says: "Being, pure Being, has no distinction within itself, and none in any reference outwards. . . . There is nothing to be perceived in it, . . . or it is only this pure void perceiving itself. Just as little is anything to be thought in it, . . . or it is equally only this void thought, this void thinking. Being, the indefinite immediate, is in fact Nothing, neither more nor less than Nothing."

We assent that Being is no definite thing, and that is probably what Hegel meant by Nothing; but Being is truly existence, indeterminate existence; for without Being there can be no determinate existence, no determinate thing; but there are determinate things; hence, there must be Being. Is pure Being, then, the energy which keeps determinate things in existence? No; but determinate things must have being, and it is their persistent energy that sustains their Being or existence. Pure Being, then, is Nothing in the sense of no determinate thing; but it is not absolute Nothing; it is that without which there cannot be any determinate thing.

We now can see why Hegel said: "Nothing, pure Nothing, is simple equality with itself; . . . it is empty perception and thought themselves; and the same empty perception or thought as pure Being. . . . Pure Being and pure Nothing are, therefore, the same. What is the truth, is neither Being nor Nothing, but that Being,—does not pass over,—but has passed over into Nothing, and Nothing into Being. But the truth is just as much not their undistinguishedness, but they *are not the same*, that they are *absolutely distinguished*, but still, nevertheless, unseparated and inseparable, and *either immediately disappears in its opposite*. Their truth is, therefore, this *movement* of the immediate disappearance of the one in the other; *Becoming*, a movement in which both are distinguished, but by a distinction which has equally immediately resolved itself."

In his doctrine of Being and Becoming, Hegel combined the Eleatic and the Heraclitic doctrines. Hegel is an Idealist. Thinking of Being, the common attribute of all existent things, what do we find? Nothing that can be definitely imagined. Our thought passes over to Nothing, and finds Nothing. Calling Being the thesis, Nothing is the antithesis; hence, the movement from Being to Nothing, from the thesis

to the antithesis, not objective movement, but subjective in thought. As this Nothing is what thought finds Being to be, Being = Nothing; in thought, therefore, Nothing swings back into Being; that is, the antithesis returns to the thesis. This oscillating process of thought from Being to Nothing, from the thesis to the antithesis, and back again from the antithesis to the thesis, from Nothing to Being, is the process called *Becoming*. The result is the synthesis of Being and Nothing, of the thesis and antithesis. This synthesis is, however, the synthesis of pure Being and pure Nothing, not of determinate Being and determinate Nothing; for the Being of \$100 is not identical with the not-Being of 100 miles, for this might be the Being of 100 acres, since the Being of 100 acres, is the not-Being of 100 miles. The idea of Being, however, is not the idea of something which can be added to the idea of any existing thing; for it is already involved in the idea of that thing. It is no peculiar or special element of any determinate thing, but is the general or universal element of all things, and is the same in all. Being, then, is not that which constitutes objective things, but is constituted by them; it does not constitute the subjective idea of things, but is involved in and constituted by the subjective idea.

To throw further light on Hegel's exact meaning, we quote from Stirling's translation: "*We think that Being is rather something quite other than what Nothing is; that there is nothing clearer than their absolute difference; and that there seems nothing easier than to show it. It is, however, just as easy to convince oneself that this is impossible, that it is unsayable. To those who would persist in the difference of Being and Nothing, let them challenge themselves to assign in what it consists.*"

Had Being and Nothing, each any determinateness by which they might be distinguished the one from the other, they would be, as has been observed, determinate Being and determinate Nothing—not pure Being and pure Nothing, as they still are here. Their difference, therefore, is entirely blank; each of the two is in the same way indeterminate: the difference, therefore, lies not in them, but in a *tertium quid*, in a mere supposition. But supposition is a mere subjective state which does not belong to this course of exposition. The *tertium quid*, however, in which Being and

Nothing have their support, must also present itself here, and it has already so presented itself: it is Becoming. In it they are different; Becoming is only so far as they are different.

The challenge to assign the difference of Being and Nothing includes this other also, to say, what then is Being and what is Nothing? Let those who strive against perceiving that the one as well as the other is only a *transition*, the one into the other—and who maintain of Being and of Nothing this and that—just say what it is they speak of, that is, produce a definition of Being and Nothing, and demonstrate that it is correct."

This is a fair challenge. Let us see what can be done by way of definition: Considered as to both extent and content, Being is whatever is; it is all reality, including object and attribute; it is reality itself. Considered only as to content, Being is the common attribute of all existent things; it is the reality of their existence; it is that without which things would have no existence. Nothing is no thing; it is non-existence itself.

It is true that, in Hegel's sense, pure Being, that is, Being abstracted from every existing thing, has no determinate existence, or pure Being = pure Nothing. The idea of pure Being *becomes* the idea of pure Nothing, and the idea of pure Nothing *becomes* the idea of pure Being; that is, the idea of either pure Being or pure Nothing makes a transition to that of the other, by the process of *Becoming*. Nothing is thought of, spoken of; it is therefore, in idea, and has its being in thought. The transition of Nothing to Being is called *arising*, that of Being to Nothing departing.

We have dwelt on the fundamental principle of Hegel, because it is important to understand this, if we would understand Hegel at all. Being = Nothing, Being is the *thesis*, Nothing the *antithesis*, and Becoming the *synthesis* of the two, the reciprocal transition of each into the other. ✓

We may regard the sum-total of all things as God's ideas objectified; and as all things are related to God, as their origin, they are related to one another, and constitute a universe. The human mind, the likeness of God, thinks his thoughts after him. Philosophy is the result of human thought objectified in history; it is not specifically the system

of Plato, or of Aristotle, of Descartes, of Locke, of Kant, of Hegel, only so far as the individual philosopher seizes the entire result, and elaborates it in a cohering system. Stirling says of Hegel: "He believes himself to have explained the universe, when he has demonstrated the notion and the necessary system of notions." Again, Stirling says: "Locke says, Notions are abstractions from Sensations; while, for his part, Hegel says, Sensations are concretions from Notions: where, at bottom, is the difference? Yes, but observe. Hegel's series is the organic system of thought, complete, so to speak, *alive* in itself."

How does Hegel pass from the oscillation of pure Being and pure Nothing, through the process of Becoming, to the universe of objects, to every thing that excites curiosity or elicits thought? Let it be remembered that Hegel was an idealist; that he held the phenomenal universe to be ideal—God's ideas objectified, externalized, arranged, according to his thoughts, by the act of his will.

I quote what Stirling says of Hegel's view of the external world: "Every finite object, whatever truly *is*, every finite object whatever truly *is not*, every finite object whatever truly *becomes*, and becomes in one or other of the modes of its double form. Nor does any object receive such determination from us; it possesses such determination in its own self; it has received such determination from God, it has been so thought by God, it has been created by God on and according to these thoughts, Being, Nothing, and Becoming. These thoughts are there—without us—in the universe, and in here—within us—in the universe; they are objective thoughts in obedience to which the whole is disposed. They are necessary pressures or compressures moulding the all of things. They are three of God's thoughts in the making of the universe."

The universe is understood through its phenomena, to some extent though imperfectly by the average man, but more perfectly by the philosopher who, from the history of speculation and by his own earnest thought, forms opinions, beliefs, ideas, and often reaches assured knowledge. With Hegel, as with Plato, the idea, or concept, is the chief thing, the individual is of little or no account; but the individual is certainly not nothing.

How do we arrive at a knowledge of the universe? Berkeley says by perception; we perceive God's ideas, and mistake them for material objects. Hegel says by conception; we construct notions in their three-fold character of thesis, antithesis, and synthesis. A determinate being excludes every other being from itself. *Omnis determinatio est negatio*, says Spinoza. A determinate notion is not any other determinate notion. To affirm a definite notion is to deny all other notions; and in the realm of notions, to deny all other notions is to affirm the given notion. The affirmation becomes the denial and the denial the affirmation, and by synthesis the two become one. In like manner, other determinate notions are constructed, and so on throughout all the processes of thought.

The human mind, Godlike by nature, constructs its ideal system in conformity with the actual universe, which it seems to construe and interpret. This, however, has been done with an approach towards completeness, not by one mind, but by a succession of minds, through the process of evolution. The different systems were often in conflict; but by their reactions upon one another, errors have been eliminated and knowledge advanced. The process has been *construction, criticism, reconstruction*.

Hegel's mind had an immense sweep; it overlooked neither quality, quantity, measure, relation, essence, actuality, causality, or reciprocity; it considered every science—physics, chemistry, astronomy, geology, biology in its two-fold form of botany and zoology, history, language, literature, ethics, politics, religion; it studied every art—landscape and architecture, sculpture and painting, music and poetry, conversation and oratory.

It is an interesting question, How could Hegel, employing, as he did, the *a priori* method, constructing notions as thesis, antithesis and synthesis, make his constructions correspond to the facts of the universe, and to the various arts, and sciences, and institutions of mankind? We may answer, the facts of the universe are God's ideas, and as the human idea is a finite copy of the Divine, the system of notions, constructed by a mind like Hegel's, would, in some degree, correspond to the creations of the Divine mind.

The correspondence, however is assumed rather than proved. An idealist would say my own ideas are all I know, and all with which I am concerned. This is dangerously near solipsism. The modesty of the idealist, in spite of his logic, would probably restrain him from the outrageous egotism of considering himself and his thoughts the sum-total of reality. Hegel had all the senses—sight, hearing, touch, taste, smell and most likely he reached many of his ideas empirically through the senses.

The better way for philosophy, as for science, is to begin with the facts of experience, and by examination, generalization, classification, definition, induction, and verication, ascend to the summit of Being, increasing the extent, as we rise, while decreasing the content. Now, having reached Being, we have, instead of Nothing, every existing thing, with one universal attribute, existence, but every actual attribute somewhere in the subdivisions.

We can now descend by division, by the process roughly thus indicated: Being is divided into dynamic being and non-dynamic; dynamic into matter and spirit, the non-dynamic into space and time; matter into organic and inorganic, and organic in vegetable and animal, and so on till we reach individuals.

Hegel had a propensity for blending opposites. This was true of the Greek philosopher Heraclitus, and of Ferrier, the Scotch philosopher. Contraries often blend, but conflictives, never. A hollow sphere is convex without and concave within, but it is not concave without nor convex within. A body may be both spherical and red, but it is not at the same time, both spherical and cubical.

Attributes are congruent or conflictive—congruent if they will blend, conflictive if they will not blend; conflictive attributes are contraries or contradictories—contraries when they do not exhaust their genus, contradictories when they do exhaust their genus. Thus red and spherical are congruents; spherical and cylindrical are conflictives and contraries, regular and irregular are conflictives and contradictories.

The fundamental laws of thought, if not respected, will revenge themselves on the thinker who violates them, they are the following: Law of identity; A thing is itself; a thing is not anything else than itself.

Law of congruents: Two congruent attributes may both be present in the same object, or both absent, or either may be present, and the other absent; hence, the presence or absence of either does not involve either the presence or absence of the other.

Law of conflictives: Two conflictive attributes cannot both be present; hence the presence of either involves the absence of the other.

Law of contraries: Two contrary attributes can not both be present, but may both be absent; hence, the presence of either involves the absence of the other, but the absence of either does not involve the presence of the other.

Law of contradictories: Two contradictory attributes cannot both be present nor both absent; hence the presence of either involves the absence of the other, and the absence of either the presence of the other.

Law of reason and consequent: An inference requires a sufficient reason. When the reason is a cause, we infer the effect, when an effect we infer some cause.

CHAPTER XXIII

Herbart, Schopenhauer, Hartmann

1. *Herbart* (1776-1841). Johann Friedrich Herbart was born at Oldenburg. His parents were cultured people, and their son was an intelligent boy, who early showed a taste for philosophy. He studied under Fichte at Jena, and was elected professor of philosophy at Göttingen in 1805, and appointed Kant's successor at Königsberg in 1808, and recalled to Göttingen in 1833, where, in 1841, he died.

Instead of beginning his philosophy with an idea of reason, as Fichte, Schelling and Hegel had done, he followed the method of Kant, and subjected to a critical examination the facts of experience. His results, however, were peculiar and widely different from those of Kant. He regarded antecedent systems mainly as failures, giving phantoms rather than truth.

As the beginning of his system, Herbart takes, for his point of departure, the common sense view of things, as given by experience. The facts of experience being accepted, it becomes the business of philosophy to account for them.

His first step is to discriminate between immediate experience and the thought which endeavors to account for that experience. Difficulties are thus seen, and doubt arises, and the first result is skepticism. This was seen in early philosophy in the case of Pyrrho and of Sextus Empiricus, and later in that of Hume. In its lower form, Skepticism doubts whether things are as they appear, but in its higher form, Skepticism doubts whether things have any existence at all.

Doubts arise from the discovery that the conceptions of experience, which constitute the materials for philosophy, involve incongruous elements; hence, the second step is so to remodel the conceptions of experience, as to render them congruous, and thus to transform skepticism into philosophy.

Herbart agrees with Hegel in regard to the conflictive elements in thought; but while Hegel teaches that these conflictives blend into one by the process of becoming, Her-

bart holds that the conflict comes from false conceptions, which are to be rectified and rendered congruous by the elimination of the false elements, and remodelling and reconciling the true. Herbart thus conforms to the fundamental laws of thought, which Hegel disregards.

At this point, Herbart introduces his doctrine of *reals* or *monads*, borrowed from Leibniz, though he makes a different application of them. If there are no reals, there could be no sensation, representation or thought. Real being is, therefore, just as certain as appearance. The phenomenal manifestation implies a real which manifests itself in the phenomena, and which sound philosophy will not fail to recognize. The real is positive; its absoluteness is not destroyed by negation or limitation; it is simple, neither admitting multiplicity nor contradictions, nor of any conceptions of greatness, discreet or continuous; it is not a creation of thought, but is to be recognized by thought as real in itself. It exists, in fact, only in the imagination of Herbart. We have no positive evidence of its existence.

A thing is not simply a manifestation of attributes, but is a substance, or rather, a combination, a complexus, of substances or monads, each as a real manifesting its own phenomenal attributes. There are therefore as many causes in a thing as there are manifestations, and perhaps more also which would be manifest, if we had other senses, or if our actual senses were more acute.

Change is explained, not by a change in the monads themselves, for they ever remain the same, though differing among themselves, but by their disturbance, and by their self-preservation in their resistance to disturbance. To explain the appearance of change, we resort to accidental views from change of relation, as the same line may be, for example, the radius of one circle and tangent to another. We can resort also to intellectual space, when we regard two points, for instance, as either coincident or consecutive. We can eliminate the contradictions involved in motion, or in the conception of a body made up of inextended atoms, or of the ego as an identical personality, and at the same time as continually changing its phenomena.

The ego is a real with apparently many powers, faculties, activities changing with circumstances; it posits itself, and

is, therefore, both subject and object, or subject-object, and hence full of apparent contradictions. It seems to be a commonwealth of reals, yet believes in its own unity; but as a unity, it is a monad or real, absolutely simple, indissoluble, immortal. It is Kant's noumenon.

Herbart holds that the so-called faculties of the soul are nothing other than its self-preservation, changing and manifold, in opposition to other reals with which it comes in conflict. The causes of the soul's changing phenomena are, therefore, other reals coming in conflict with the soul-monad, and these changing operations apparently imply independent powers or faculties, which Herbart rejects. It has, however, the power of resistance. This discarding of faculties, is well enough so long as faculties are regarded as subordinate egos within the ego, each doing its own independent work. The fact of different mental phenomena cannot be denied, as it is given in consciousness; for since the ego feels, it is susceptible of feeling, or has sensibility; since it thinks, it has intellect; since it chooses, it has will. Feeling, cognition and volition cannot pass into one another, and these distinctions are marked by the words sensibility, intellect and will; but the same ego feels, and thinks, and wills. It is a thoughtless act to ridicule the term *faculty*, or to ridicule those who employ the term, by calling them "faculty-philosophers." It is better for a philosopher to possess faculties than to be destitute of them. Herbart discards the term *faculty* because inconsistent with his own peculiar views, which have not yet been established beyond question. Faculty is a convenient term and denotes a power or susceptibility of the ego.

To return to reals: A real in itself can be the object of thought, though it is independent of thought; it is absolute, simple, spaceless. A line regarded as made up of consecutive points, may be conceived as the continuous track of a point moving through the consecutive points. A body may be conceived to be made up of reals in adjacent positions.

How can the ego exhibit various manifestations, while, as a real, it remains one and identical? It reacts against the disturbances caused by various other reals, each reaction giving a different manifestation, because the other reals are different. The ego, as intelligent, is conscious of the changing mani-

festations caused by its conflict with other reals; for consciousness is the realization of these disturbances which appear as phenomena. Representations restrained from the clearness of thought are *feelings*. The resolution to realize the object of desire is volition, which, as a dominant representation, implies the hope of success. The character of a man is the constant presence of certain dominant representations.

Herbart did good educational work, which has proved to be a wholesome stimulus to teachers. He taught that Aesthetics deals with beauty which has an absolute value, making no appeal to self-interest, but calling out disinterested admiration. Ethics, according to Herbart, is a branch of Aesthetics, dealing with those relations among the volitions that unconditionally please or displease. This would, of course, bring Ethics under Aesthetics, if to please or displease, we add the Aesthetic sentiment of taste. It would be better to say: Ethics deals with those volitions which meet with the approval or disapproval of the moral judgment. Five topics, according to Herbart, are embraced in Ethics: Internal freedom, perfection, benevolence, right, retribution.

In beginning with the facts of consciousness, Herbart was right; and he was also right in maintaining that every phenomenon implies a *real*, and in general, two reals—the objective real, and the subjective real, or ego. The two reals become one when the subject is also the object; but here is a case of difficulty. How can the subject be its own object? Empirically, it cannot. The ego is conscious of phenomena; but the necessity of the ego itself is apprehended by rational intuition. Psychology deals with the facts of mind, metaphysics with the ego, or in general, with the conditions of phenomena.

There is, of late, a tendency to use the word *consciousness* instead of mind, or ego; but consciousness, as an act or state of mind, is phenomenal, and demands, for its condition the ego, or as Herbart would say, a *real*, without which it would be impossible. Consciousness takes note of mental operations; but it is not the ego; it is the experience of the ego, the realization of the ego's activity or disturbances.

Herbart found contradictions in all phenomena, and these contradictions he attempted to eliminate. To do this he

resorted to mathematics, expressing the states of consciousness by formulae, by means of which he endeavored to get rid of contradictions, and thus to purify conceptions. By this method, psychology becomes *mental mechanics*, excluding all freedom, which Herbart allowed. But his mathematical method has not been eminently successful. Herbart, however, had a penetrating mind, and was a deep thinker.

2. *Schopenhauer* (1788-1860). Arthur Schopenhauer was born at Dantzig, a free imperial city. His father was a well-to-do merchant, and his mother a novelist. After Dantzig became incorporate with Prussia, the family withdrew to Hamburg. Arthur's early education was under the care of his mother.

The family spent some time in France and England, and by his acquaintance with the languages of these countries, he acquired a more sprightly style than was usual for a German. At first, he was not a diligent student, but finally, from the Greek scholar, Passow, he acquired familiarity with the Greek and Latin languages.

He entered the University of Göttingen, and by the advice of Prof. Schulze, his philosophic studies were directed especially to Plato and Kant, both of which he held in high admiration. While in the university he was unsocial, gloomy and became a confirmed pessimist. With him happiness was not positive enjoyment, but negative, the absence of misery. After spending two years at Göttingen, he entered the University at Berlin, and attended the lectures of Fichte and Schleiermacher.

Awakened by the general enthusiasm for German liberty, and against French dominion, he bought a set of arms, but could not make up his mind to enlist. He withdrew to Weimar, and from thence to Rudolstadt, where in quiet, he prepared a very able essay for the degree of Doctor of Philosophy, on *The four roots of the principle of sufficient reason*. These four roots, according to Schopenhauer, are: *Causa fiendi*, *causa cognoscendi*, *causa essendi*, *causa agendi*, relating respectively, to the reason for events, the reason of knowing, the reason of being, the reason for acting. He received his diploma from Jena.

From the press of Rudolstadt, he issued his first philosophic work. *Die Welt als Wille und Vorstellung*, which, though

written in good style, and abounding in sharp criticisms, fell flat from the press, winning neither readers, nor notices from periodicals, a result probably due to the prevailing Hegelianism; but after thirty years, it came to be regarded as a work of merit. Schopenhauer considered himself the true successor to Kant; but though our scientific knowledge is limited by the line of experience, yet we can penetrate to the mysterious *Ding an sich*, by the study of ourselves. The desires and volitions within ourselves, leading to our hopes and fears, strivings and disappointments, reveal to us the core of our own nature, and through us the hidden essence of the world itself, and that core, that essence, that centralizing principle, is the desire to be, the will for continued existence, the desire to rise to consciousness, as in man. The world, as idea, exhibits these struggles of the will, as revealed through gravitation, crystalization, chemical affinities, magnetic and electrical attractions and repulsions and in organization, through feelings, perceptions, reason, and deliberate will; but every where no satisfaction, only unrest, unsatisfied desire, defeat, pain, disgrace; nor can we hope for anything better; all is vanity and vexation of spirit.

Schopenhauer was no admirer of Fichte, Schelling and Hegel, and became suspicious that Schelling and Hegel especially conspired against his own success, and regarding these great philosophers with contempt, he still more despised their disciples. All this, however, only added to his own unhappiness, and intensified his pessimism.

Perception, Schopenhauer held, is to be explained by an external cause exciting sensation. This cause in connection with time and space, is known *a priori*, not *a posteriori*; it has a rational root, not an empirical origin. The necessity of a cause is known *a priori*, what the cause is, *a posteriori*. From the principle of causality, the law of inertia, and of the conservation of matter and energy follow as necessary consequences.

The appearance of the world to us is determined by the mode of our knowledge, and would change with the change in the constitution of our senses. The world is a series of ideas held together by the four-fold principle of sufficient reason; but its empirical result is not disturbed by the theory of its ideal existence; but as ideal, its explanation falls back

to the subject whose very core is will accompanied by feeling and thought. But does not this make each ego the center of things, and the creator of his own universe? It is true that it does, and that is the logical outcome of idealism. Any ego, if idealism is true, can say: I am the sole creator of all things, and all other egos, so-called, are only the creatures of my own act of creation. But the essence of ego is will, and this will is identical with the will, the essence of nature, or the will of ego is the will of nature. How can will, if only phenomenal, if only volition, be the essence of nature? Volition is an event, and has a cause. But will as the source of volition, is therefore, not merely phenomenal, it is noumenal, it is cause itself, essential Being. The individual human ego cannot be the essential will of the universe; for this will is often thwarted, defeated, disappointed, and does not have its way; the essential will is the omnipotent God, who created all things, and upholds them by the word of his power.

Schopenhauer discriminated sharply between knowledge and the will, but confounds the feelings, desires, loves, hatreds with the volition, and this is accounted for by his own manner of life, for he often gave way to passion and desire in opposition to reason.

Volition, as revealed to consciousness, is outwardly visible in the movements of our bodies; the volition and bodily movement, Schopenhauer held, are not related as cause and effect, but movement is the visible volition. As the will in man manifests itself in bodily movements, so the will in nature, its different forces, become visible in the movements in the external world. According to its degree, the will is blind or conscious deliberate action, as in the voluntary actions of man. Schopenhauer held, as taught by Fichte, that the human body enables man to struggle against the limitations opposed by nature.

With Schelling, Schopenhauer held that matter in nature attempts to raise itself up to spirit, striving through mechanical action and all forms of activity to conscious volition and reasonable action, and becomes thus the universe made visible. The optimist, in his hopefulness, looks for happiness; the pessimist, in his despondency, anticipates evil; for he sees through the illusion, and is confirmed in his opinion by his own experience; but the evil he encounters, is brought upon himself, for the most part, by his own folly.

Schopenhauer did not find deliverance from evil through obedience to the moral law, but he sought peace in aesthetic satisfaction, and in intellectual activity; but the achievements of authorship only subjected him to the envy and detraction of rivals.

3. *Hartmann* (1842-1906). Edward Von Hartmann was born at Berlin, an only child of the family. His father was a military officer permanently stationed at Berlin, at the head of a commission for testing proposed improvements in heavy firearms.

Edward was a precocious boy, and at a very early age was prepared to enter the University. He, however, chose the profession of his father, and took a course in artillery and engineering, but a chronic affection of the knee prevented his entering upon active service.

He turned his attention to art, for which he had a taste, and even published a poetical drama founded on the story of Tristan and Isolde; but as this did not prove successful, he turned his attention to philosophy.

He studied carefully the works of Schelling, Hegel and Schopenhauer, and at the age of twenty-two, began *The Philosophy of the Unconscious*. This work was first published as one volume of 800 pp. The book was at once popular, and has passed through at least nine different editions. We use, for this review, the authorized translation of Coupland's, published by the Macmillan Company.

Hartmann's superior success, as an author, compared with that of Schopenhauer's, is accounted for by the fact that he found a publisher who interested himself in the success of the work, which he vigorously pushed, while Schopenhauer published his book himself, and trusted to its merits in giving it circulation, and consequently it remained, for a time, comparatively unknown. Hartmann also introduced into his book topics suitable for popular conversation, review and discussion, and consequently the book at once attracted a great deal of attention; even the criticisms of the work made it the better known and the more sought after.

Hartmann opens his work, *Philosophy of the Unconscious*, with "unconscious idea," which he finds in Kant. No doubt there are *subconscious* operations of mind, those processes which have not yet risen to the plane of consciousness; they are

subliminal states, as they are called by others; but whatever rises to the rank of knowledge, becomes, by that very fact, an object of consciousness; because if I know, I know that I know, for if I do not know that I know, I do not know; knowledge involves consciousness.

We are conscious of every phenomenon; for a phenomenon is what appears, and if we are not conscious of it, then it does not appear, or is not a phenomenon; but it does not follow that there may not be latent processes, that is, processes of which we are not conscious. Thus we may begin the investigation of a subject, then drop it for awhile in order to attend to something else, and after a time return to the subject, and find that we have advanced in its development, though we were not conscious, in the meantime, that it had occupied our thought.

To let Hartmann open the subject himself, we quote: "I designate the united unconscious will and unconscious idea 'the Unconscious.' Since, however, this unity again only rests upon the identity of the unconsciously willing and unconsciously thinking subject, the expression, 'the Unconscious,' denotes also this identical subject of the unconscious psychical functions,—a something in the main unknown, it is true, but of which we may at least affirm, that besides the negative attributes 'being unconscious and exercising functions unconsciously,' it possesses also the essentially positive attributes, willing and representing. As long as our speculation does not transgress the limits of individuality, this may be sufficiently clear. When we, however, view the world as a whole, the expression, 'the Unconscious,' acquires the force, not only of an *abstraction* from all unconscious individual functions and subjects, but also of a *collective*, comprehending the foregoing both extensively and intensively. Lastly, it will appear that all unconscious operations spring *from one* and the *same* subject, which has only its phenomenal revelation in the several individuals, so that the 'Unconscious' signifies this one Absolute Subject."

Hartmann says: "In each succeeding chapter, one piece more of the world *crystallizes*, as it were, around this *nucleus*, until, expanding to *all unity*, it embraces the Cosmos, and at last is suddenly revealed as that which has formed the *core* of all great philosophies, the Substance of Spinoza, the Ego of Fichte, Schelling's Absolute Subject-Object, the

Absolute Idea of Plato and Hegel and Schopenhauer's Will;" and we may add, Spencer's Ultimate Reality, and the God of Theism.

Like a living tree sustained by the solid stem of heart wood within, while the life is in the annular growth, in the new shoots and leaves, so all present vital philosophy is a growth; it has historic roots in the soil of the past, and is sustained by the solid products of the deep thinkers of the past; but it grows anew from the root, rising still higher and expanding in living beauty.

How are we to reach truth in philosophy? Shall we employ the deductive or the inductive method? Or shall we use one, the inductive, in discovery, and the other, the deductive in proof? Different causes may produce the same effect; hence, a cause may be assumed which might produce the effect, and yet not be the true cause, and it is not to be held true, because accounting for the effect.

Philosophers who employ deduction, reach their first principle by a misty flight; but deduction cannot prove its first principles, and its conclusions cannot be communicated. This mode of proof inspires the scientific mind with an aversion to philosophy conducted by the deductive method, leading even to contempt. Hartmann, therefore, contends that the inductive method is the only legitimate one for philosophy as it is for science, whether employed for discovery or for proof, and so chooses his motto: "Speculative results according to inductive scientific method."

Hartmann holds to a purpose in nature as in instinct, though unconscious of the purpose. He regards causality as a logical necessity. Causality may indeed co-operate with logical necessity, but does not a logical necessity appeal to reason and is not the conclusion clearly apprehended? If, in a measure, this is true of instinct, is it certainly true of the functions in the vegetable kingdom?

The conception of an end is a familiar experience of man, who forms plans and works to realize them. If the end, which is still future, cannot be realized directly, resort is had to means, or causes which bring the end to pass. To will the end is to will the means; to employ the means is to realize the end. Necessity reigns throughout, save that freedom exists only in the ego, who chooses the end in view of reasons which solicit, but do not compel the choice,

Hartmann holds the difference between man and the lower animals to be one in degree, not in kind. Man's superiority arises from his ability to generalize in the formation and application of concepts, and in his more perfect language. The apparently new faculties are only secondary powers which have been developed in certain directions by the higher cultivation of primary capacities.

The mental powers, Hartmann divided into those of willing and thinking, resolving feeling into one or the other of these. Will in animals is essentially the same as will in man; but he rightly distinguished between volition and reflex action. In volition, we have emotion, and the carrying out of an intention with a purpose, but reflex action is mechanical and passionateless. Emotion is often present in animals, as in ants when one community makes war upon another, the conquering tribe reducing the conquered to slavery, likewise anger is exhibited by bees. A decapitated frog seems to act with a purpose, indicating that thought is not confined to the head; and hence there is will without brains. The spinal chord and the ganglia exhibit separate will. The meaning of the word will, Hartmann extends so as to take in the cause of unconscious movements. Will with a conscious aim, he calls *free-will*, and unconscious will he calls simply *will*. Desire is inchoate volition, and impulse is latent disposition to action.

Hartmann maintains that when a person wills, for example, to lift a finger, the finger is lifted, not by the direct act of the conscious will, but by the unconscious; the right nerve is not consciously selected to do the work of contracting the proper muscle, but the end being consciously chosen the mind unconsciously wills the right means by selecting, though unconsciously, the right nerve to contract the right muscle.

Instinct is first defined by Hartmann as purposive action without consciousness of the purpose; it directs action to an end, not by conscious reflection, though the result, when realized, gives satisfaction. Is it a mere consequence of corporeal organization? or is it a result of mental mechanism? or is it the consequence of unconscious mental activity?

Hartmann gives reasons for denying the first and second of these alternatives, and for affirming the third. The work

prompted by instinct varies according to circumstances, showing that instinct is somewhat plastic, approaching, in certain cases, conscious intelligent action, or is in combination with it. Thus bees build hexagonal cells in the middle of the comb, but pentagonal at the edges; they kill off the drones, when no longer needed. Some birds brood on the eggs in the cold of the night, and leave the nest in the heat of the day. Instinct is sometimes attended with pleasure, and sometimes with pain, and in the latter case it appears like a virtue. Even when attended with pleasure, we cannot consider pleasure the motive, as in the first act from instinct, where there has been no previous experience of pleasure from that source. Hartmann, therefore, concludes that: *Instinct is conscious willing of the means to an unconsciously willed end.*

Though Hartmann peremptorily rejects the hypothesis that instinct is merely the action of a pre-arranged mechanism, he does not exclude the constitutional tendencies of the organism. The instinctive tendency is augmented either by individual habit, or by inheritance, through the customs of many generations, or it may be called forth by an unconscious impulse to a particular line of action. Instinct explains especially, not why the actions of one individual of a class differ from those of another individual, but why the actions of one class differ from those of another class.

Deviations, from customary instinctive acts are not accounted for by mechanism; inheritance is possible only through unconscious influence in the embryonic development which modifies the mechanism; mere instinctive actions cannot be engendered by habit; mechanism may predispose, but does not necessitate instinctive acts. Hence, purposive action without consciousness of purpose is always found in instinct.

Hartmann now raises the question, whether the so-called instinctive actions are not, after all, the results of premeditation. Narrowing the field intensifies the action; but the lower the rank, the narrower the field relative to total capacity, yet as the instinctive performances remain equal, while the perfection of those acts which admittedly proceed from conscious reflection is proportional to the mental capacity, the instinctive acts have a different origin. The instinctive acts of animals are as well performed at first as ever after-

wards, not so those acts learned by experience. Instinct is blind as to the *reason why*, clear as to the *manner how*, but immediately, not by reflection, as we rise in the scale of being, instinct is gradually supplanted by reflection, as in man, though traces of instinct remain.

Reflection operates only on data given in consciousness, but certain acts are performed when the data for reflection are not possible. From whence then do such acts proceed? Hartmann says from clairvoyance, that is from unconscious knowledge, or knowledge not produced by sensible experience. Witness, the alarm of animals at the approach of enemies they have never before seen. Observe their discrimination in their choice of food; their avoidance of poisons. Even in man, there is often a craving for a certain kind of food, the reason for which is not understood. Cats taken from home find their way back again by a clairvoyant instinct.

The instinctive act is vividly realized by the individual, and springs from its inmost nature, while neither the end nor the means are consciously chosen.

Clairvoyance and instinct, though not identical, are often found together, then clairvoyance serves to throw light on instinct, but not conversely. Instinct is the inmost core of being, as shown in the effort to preserve the individual, or in the more important effort to preserve the species, even at the sacrifice of the individual. Instincts are unerring, and within the same species, uniform.

Hartmann closes his chapter on instinct by quoting from Schelling: "There is no better touchstone of a genuine philosophy than the phenomena of animal instinct, which must be ranked among the very greatest by every thoughtful human being." Though we have very greatly condensed Hartmann's discussion of instinct, we have endeavored to make it clear.

Hartmann discusses the evils commonly attending the course of ordinary life. These evils arise chiefly from ignorance or from the selfish desire to enjoy the unlawful pleasures of an immoral life. These evils can be obviated by knowledge and by the purpose always to obey the moral law. Hartmann gives many valuable directions for discovering and avoiding these evils, and these directions, may be applied in avoiding or greatly modifying these evils, and thus rendering life satisfactorily successful.

CHAPTER XXIV

Reid, Stewart, Brown

1. *Reid* (1710-1796). Thomas Reid, the founder of the Scottish school of philosophy, was born at Strachan, near Aberdeen. His father, a clergyman descended from a long line of clergymen, held his position as pastor at Strachan for fifty years. His mother was of the family of the Gregories, which was distinguished for scientific and literary attainments.

After receiving his primary instruction at the parish school, Thomas entered Marischal College, Aberdeen, and was instructed in philosophy by Dr. George Turnbull, a writer of considerable ability, and from whom Reid received his bias in philosophy.

Reid graduated at the age of sixteen, but remained ten years longer at the University in the capacity of librarian, devoting his spare time to reading and to scientific and mathematical study.

In 1737, Reid was appointed pastor of the Church at Newmachar. At first, he was received with hostility by his parishioners, but finally, he won them by his affability and goodness of heart. While pastor, he devoted much time to study, his attention being turned to philosophy by Hume's treatise on *Human Nature*. He was chiefly interested in the study of external perception. His first publication, however, treated of philosophical method, suggested, as was understood, by reading the works of Hutchison.

In 1752, Reid was elected to the chair of philosophy in King's College, Aberdeen, which position he held for twelve years. In 1763, he filled the chair of moral philosophy at Glasgow. Then resigning to give his time to philosophical writing. Owing mainly to the efforts of Reid, the Aberdeen philosophical society was organized of which he was the first Secretary, this society enrolled the distinguished names of Beattie, Campbell, and Dr. John Gregory. Among the subjects discussed were the speculations of Hume; and thus

Reid, in his opposition to Hume, was naturally led to his philosophic doctrine of *Common Sense*. By common sense, Reid did not mean the crude notions of the vulgar, but the generally accepted opinions of sound minds, capable of forming reasonable judgments.

Reid admitted that Hume's conclusions were logical deductions from Locke's philosophy, and therefore concluded that the only satisfactory refutation of Hume's doctrines that could be made, was to show the falsity of the principles assumed by Hume, as the basis of his reasoning.

To the assumption of Hume that "all the objects of my knowledge are ideas in my own mind," Reid opposed his doctrine of "Common Sense." This designation was unfortunate, because misleading, many taking it to mean the crass opinions of the ignorant; but by common sense, Reid meant *rational intuition*, or the immediate affirmations of reason, though not the process of reasoning. Evidently, reason or rational intuition is authority sufficient to establish axioms, or rational first principles, such as, for example, *Every event must have a cause*, or either of two equals is a substitute for the other.

Reid, however, applied his doctrine of common sense to the explanation of the fact of perception, maintaining that the mind has an *immediate knowledge* of external objects. Surely in this application of his doctrine of Common Sense, Reid was at fault. Our perception of external objects is *not* immediate, but *mediate* through sensations. If external objects did not affect us giving us sensations, we should not be aware of their existence. We pass judgment on our sensations, inferring their causes, and then ideate or picture our inferences by the act of the imagination. This fact of mental pictures constitutes the truth of idealism that the appearances, which the vulgar call things, are ideas of our own creation and so far is the theory of idealism true; but it is not the whole of the truth. We create the pictures but not the causes of our sensations. The appearances are the pictures of our discoveries of what we hold to be true of external objects. Common sense takes the appearances for the objects; subjective idealism takes the pictures as ideas, which they truly are, but denies the objective causes of the sensations, though Berkeley admitted objective causes of sensation, but called them God's ideas.

In affirming the existence of external objects, Reid is right; but in identifying the appearances with the objects he is wrong. In identifying the appearances with ideas, idealism is right; but in denying external objects, apart from ideas, it is wrong.

Sensations are produced by external causes, and not by the ego, which is passive in sensation. Even Berkeley admitted this in saying: "I assert, as well as you, that since we are affected from without, we must allow powers to be without, in a being distinct from ourselves." That we are affected from without is clearly evident whenever we are spoken to by another person, as that person himself will testify.

In holding that we have knowledge of external things, Reid is right; but he is wrong in holding that this knowledge is *immediate*; for if immediate, we should need neither senses, nor sensation; but sensation is the condition of perception, and the senses point to external objects. Perception is the interpretation of sensation, in reference to its cause, and the picture or appearance, constructed by the imagination, embodies our idea of the cause of sensation.

The fact, however, is that Reid is not always self-consistent in his treatment of the facts of perception. Take his theory of color: "The common language of mankind shows evidently that we ought to distinguish between the color of a body which is conceived to be a fixed and permanent quality in the body, and the appearance of that color to the eye, which may be varied a thousand ways, by a variation of the light, of the medium, or of the eye itself. The permanent color of the body is the cause which, by the mediation of various kinds or degrees of light, and of various transparent bodies interposed, produces all this variety of appearances. . . . In particular, the idea which we have called the appearance of color, suggests the conception and belief of some *unknown quality* in the body which occasions the idea; and it is to this quality, and not to the idea, that we give the name of color." If the quality which Reid calls color is unknown, the mind does not perceive the very thing itself, and the colored appearance is only a representative idea, or picture of the external cause. The phenomenal color as sensation is immediately known; the external cause is inferred.

That Reid's doctrine in regard to external perception is somewhat vacillating can be readily shown. Does he hold

that we have an *immediate* perception of external objects? It appears so; for he says that Hume, "after acknowledging that it is a universal and primary opinion of all men that we perceive external objects immediately, subjoins what follows; 'But this universal and primary opinion of all men is soon destroyed by the slightest philosophy which teaches us that nothing can ever be present to the mind but an image or perception; and that the senses are only the inlets through which these images are received, without being ever able to produce any immediate intercourse between the mind and the object. The table which we see seems to diminish as we remove farther from it; but the real table, which exists independent of us, suffers no alteration. It was, therefore, nothing but its image which was present to the mind. These are the obvious dictates of reason; and no man who reflects ever doubted that the existences which we consider, when we say *this house*, and *that tree*, are nothing but perceptions, in the mind, and fleeting copies and representations of other existences which remain uniform and independent. So far then we are necessitated by reasoning to depart from the primary instincts of nature, and to embrace a new system with regard to the evidence of our senses.'" Reid resumes: "We have here a remarkable conflict between two contradictory opinions, wherein all mankind are engaged. On the one side stand all the vulgar, who are unpracticed in philosophical researches and guided by the uncorrupted primary instincts of nature. On the other side stand all the philosophers, ancient and modern—every man without exception who reflects. In this division, to my great humiliation, I find myself classed with the vulgar."

Reid here admits that he believes we have an *immediate perception* of external objects. The quotation from Hume is worthy of attention. He distinguishes rightly between the appearance and the real object as the table which he admits to be independent of us. The fact is, the appearance of the table is the picture constructed by the imagination embodying our judgment in regard to the real external object, the table itself.

Does Reid hold that we have a *mediate* perception of external objects? It appears so; for he says: "We perceive no external object but by means of certain bodily organs."

Again, "the impression made upon the organs of sense must be communicated to the nerves and by them to the brain." Reid, therefore, holds to the doctrine of *mediate perception* of external objects. Hence it is evident that Reid inconsistently holds both to *immediate perception* and *mediate perception* of external objects.

Again Reid says: "If, therefore, we attend to that act of our mind which we call perception of an external object of sense, we shall find in it these three things: *First*, some conception or notion of the object perceived. *Secondly*, a strong and irresistible conviction and belief of its present existence. And, *thirdly*, that this conviction and belief are *immediate*, and not the effect of reasoning."

Perhaps Reid did not mean to say that the conception or notion of an object perceived is first in the order of time, as it is really the last step in the act of perception, but that the conception is inseparable from the perception. There is, of course, a conviction of the present existence of the object perceived. This conviction, though not the result of the ordinary reasoning process, is nevertheless the result of the intuition that the sensation, which is the condition of perception, has an external cause, and that the cause is the object which the judgment declares it to be.

Reid did great service to philosophy by exposing the doctrine that ideas are something intermediate between the objects which they were supposed to represent and the mind which perceives the ideas. The ideas are not objects of perception, but of conception; they are not perceived by the mind, but are created by the mind, and embody our inferences concerning the objects which give us certain sensations. These inferences are spontaneous judgments which are ideated as pictures expressing our knowledge or belief of what we hold to be true in regard to the objects. The ideas are mental pictures of the objects and complete the act of perception.

Reid succeeded better in exposing the errors of others than in establishing a consistent doctrine of his own.

2. *Stewart* (1753-1828). Dugald Stewart, the son of Matthew Stewart who, for twenty-five years, held the professorship of Mathematics in the University of Edinburgh, was educated at the High School and University of his native city.

At this school, he cultivated his taste for language and literature, and acquired that elegance and finish of style which distinguished his subsequent writings. At the University his chief studies were philosophy and mathematics, in which he became very proficient.

His instructor in philosophy at Edinburgh was Adam Furgerson, though afterwards he attended, at Glasgow, the lectures of Reid whom he acknowledged his master in philosophy. At Glasgow he formed a lasting friendship with Alison, who, later in life, was the author of an *Essay on Taste* celebrated for its valuable criticisms.

Stewart assisted his father for three years in mathematics, and in 1775, in conjunction with his father, was appointed professor of mathematics, which position he filled for several years with distinguished ability. In 1778, Furgerson, being appointed secretary of the commission to the American colonies, requested Stewart to supply his place as lecturer on moral philosophy which he did for one year, in addition to his mathematical work, but called it the most laborious year's work of his life.

In 1783, Stewart married Helen Baunatyne, who died in 1787, leaving an only son, who afterwards became a colonel in the army.

On the resignation of Furgerson in 1785. Stewart was transferred to the chair of Moral Philosophy, and for twenty-five years adorned his position by the eloquence of his lectures, which were attended by many young men who afterwards became celebrated. Among these were Sir Walter Scott, Lord Brougham, Sydney Smith, James Mill, Francis Horner, Jeffrey, Dr. Thomas Brown, Archibald Alison, and Sir James Mackintosh.

In 1790, Stewart married Miss Cranstoun, a lady of rank and accomplishments, who, as critic, assisted him in his writings. Stewart published the first volume of the *Elements of the Philosophy of the Human Mind*, in 1792 and in 1793, his *Outlines of Moral Philosophy*. His *Philosophical Essays* appeared in 1810; the second volume of the *Elements* in 1814, and the third volume, not till 1827.

In 1815, the first part of his *Dissertation on the Progress of Philosophy* was published in the Encyclopædia Britannica Supplement, and in 1821, the second part. In 1828, a few

weeks before his death, appeared his last work, entitled *The Philosophy of the Active and Moral Powers*.

Stewart was perhaps more distinguished for his elegant style than for his originality or depth of thought. Dr. John Thomson of Edinburgh University said that what impressed him most, in the course of his life was the acting of Mrs. Siddons and the eloquence of Stewart.

Stewart avoided daring hypotheses and eccentric theories, and followed the safer path of sound judgment and conservative opinion.

By the elegance of his style, Stewart rendered the *Philosophy of Common Sense* attractive to many minds that were repelled by the bold statements of Reid. Any cultivated mind, though not trained in philosophy, can read with delight, approaching fascination, Stewart's chapters on memory and the imagination.

Though Stewart added nothing new to philosophy, yet he adjusted and made coherent the doctrines of Reid, making them more intelligible and attractive to the common mind, and thus, by awaking a philosophical taste, promoted higher culture among the people. His works may still be read, with interest and profit, even by the philosopher.

Much better versed than Reid, was Stewart in the history of philosophy, and this enabled him to give to his writings the richness of all the ages of thought, and to exhibit all the wealth and charm of scholarly attainment.

Stewart improved on the phraseology of Reid, as for example, by introducing, in place of the term, "The Principles of Common Sense," which is objectionable on account of its ambiguity, the more precise and dignified expression, "The Fundamental Laws of Human Belief."

He also made a better classification of the phenomena of the mind. In fact, he was a much better psychologist than Reid; and yet Stewart's analyses and classifications are by no means faultless. Thus, he called *consciousness* a special faculty, co-ordinate, for example, with perception, memory and imagination, whereas it is an accompaniment of the other acts and states of the mind, and is involved in them as a necessary element. Thus, if I know, I know that I know, or am conscious of knowing. Of course, if we are conscious,

we are capable of being conscious, but this capability is involved in all our mental powers. It is the present tendency to make *consciousness* equivalent to *mind*.

Stewart was more employed in defending the positions gained by Reid than in making advances or in building up a complete and compact system of philosophy of his own.

3. *Brown* (1778-1820). Dr. Thomas Brown was born at Kirkmabreck, at the manse of his father, the Rev. Samuel Brown, minister of the united parishes of Kirkmabreck and Kirkdale.

His father died before Thomas was two years old, and his mother, shortly after, removed with her family to Edinburgh, and there attended to the primary education of her son, who was a bright and very precocious child.

When about seven years of age, Thomas was sent to London under the charge of his uncle, Captain Smith, by whom he was placed at school. He showed his genius for poetry by writing, on the assigned theme, verses on the death of Charles the First. These verses so pleased his teacher, that he secured their publication in a literary magazine. He attended different schools while in London, and on the death of his uncle, returned to Edinburgh, at the age of fourteen, and entered the University. His books were shipped by water and, to his great grief, were lost at sea.

He commenced his University course with Logic, under the instruction of Dr. Finlayson. While spending his vacation at Liverpool, he became acquainted with Dr. Currie, the biographer of Burns, who placed in his hand the first volume of Stewart's Philosophy. Brown was so captivated with it, that the next winter he attended the course of lectures given by Stewart. Though greatly admiring Stewart Brown ventured to make a criticism on a certain point of Stewart's doctrine. Stewart listened kindly, and then read to him a letter from the distinguished M. Provost, of Geneva, making the same criticism.

Brown spent his time profitably at the University, under able instructors, giving also considerable attention to general literature. In reading "*Zoonomia*," the work of the learned Dr. Erasmus Darwin, grandfather of the celebrated Charles Darwin, Brown found certain points of interest which he noted in the margin. These notes were finally expanded

into a volume, which was published anonymously, and attracting great attention, was by the high authority of the *Monthly Review*, and the *Annals of Medicine*, highly praised, and attributed to some distinguished philosopher.

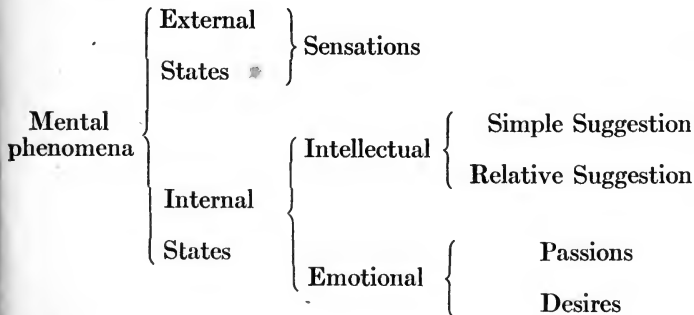
Brown began the study of law, but abandoned that for medicine in which he finished a course and took the degree of *Doctor of Medicine*. In the practice of medicine, he became partner of the famous Dr. Gregory.

On account of declining health, Stewart invited Brown to lecture for him, and the next year, 1810, at the request of Stewart, he was appointed his colleague in the department of philosophy, and thenceforward discharged all the duties of the professor of Moral Philosophy.

Stewart's lectures exhibited classical elegance; Brown's poetic imagery, and all the flowers of rhetoric. They completely captivated his audience of students from sixteen to twenty years of age, Brown's books were exceedingly popular, not only in Great Britain, but in the United States.

For what was Brown distinguished? Not only for the attractiveness of his style, but for his penetrating discernment and masterly powers of analysis. He was accustomed to resolve every subject he took up into simpler elements, and to present it in a new form. He attained an undue popularity for twenty years, his reputation culminating during the five years from 1830 to 1835, and then through the influence, chiefly of Coleridge and Hamilton, passed into undeserved neglect.

Brown's classification of mental phenomena is as follows:



The distinction between the external and internal states is not well taken. A sensation, though its immediate antecedent is physical, a nervous excitement, is just as clearly internal as an intellectual or an emotional state. Again, the distinction of simple suggestion and relative suggestion is not clear, nor as correct as that of memory and judgment, for which they are substituted. Association undoubtedly is of primary importance in memory, but judgment is not merely passive, swayed by hints from various sources, but is an active operation of the intellect, and in fact is the typical form of thought.

Brown has entirely overlooked the *will* as a distinct act or power of the mind. It is not to be confounded with desire, as many of the Scotch philosophers are inclined to do; for we desire many things we do not will to appropriate. Will is the sovereign power of the mind, and a moral being is justified or condemned, according, as its decisions are right or wrong.

The classifications of the psychical phenomena as cognitions, feelings, and volitions, implying the powers or susceptibilities of intellect, sensibility and will, is much more clear, comprehensive and correct than that given by Brown.

Brown discarded the use of the terms, powers, susceptibilities, or faculties, and this has also been done by the German philosopher, Herbart, but without good reason. If we think, we are capable of thinking; if we feel, we are susceptible of feeling; if we will, we have power to choose or decide; and these capabilities, susceptibilities, and powers are conveniently designated by the compendious term *faculties*. This does not, of course, mean that the mind is triple, but that the one mind has three generic capabilities; for every one says: I think, I feel, I will. It is the same *I*.

He who thinks that he is no more than a succession of thoughts, feelings and volitions, has no adequate conception of himself. In such a state of things, there can be no personal identity. It would certainly be absurd to punish a certain collection of thoughts, feelings, and volitions now, for what an entirely different collection did a long time ago.

It is true, that we are conscious only of phenomena; but thoughts, feelings and volitions are neither self-originating, nor self-supporting. Reason refers them to a subject who thinks, feels, and wills. It is by rational intuition, and by

that only, that the ego, conscious of phenomena, knows itself as a knowing, sensitive, and active being. The continuous personal identity of the ego is the condition of memory, the justification of punishment or reward, and the seat of conscience.

Antagonistic to Reid's theory of preception was that of Brown which held that the object of perception is the mind itself as affected in such a manner as to induce in it a certain state; but the truth is, perception goes beyond the mental state and infers and ideates its cause. But more about perception in the next chapter.

CHAPTER XXV

Hamilton, Ferrier, McCosh

1. *Hamilton* (1788-1856). Sir William Hamilton, Bart., was the son of Dr. William Hamilton, who succeeded his father, Dr. Thomas Hamilton, as professor of Anatomy in the University of Glasgow. On the death of his father, which occurred in 1791, William and his younger brother, Thomas, afterwards Captain Thomas Hamilton, were brought up under the care of their mother, a woman of ability and energetic character.

William received his early education in Scotland, except for two years at a private school near London. Returning to Glasgow, he entered the University at the age of fifteen, and studied Logic under Jardine, and Moral Philosophy under Mylne, and held the first rank in both classes.

In 1807, he went to Oxford, and entered Balliol College. He entered heartily with the English students into the sports of boating and other gymnastic exercises but threw the whole force of his intellect into his studies, delving especially into the works of Aristotle. At the close of his course he presented himself for examination on many more difficult studies than those required for the first honors. His success was triumphant, and was long remembered as a tradition in the College.

Having secured the degree *B. A.* and first class honors, he went to Edinburgh, with the intention of devoting himself to medicine, but shortly abandoned that pursuit for the study of law. Having studied for the legal profession, he became, in 1813, a member of the Scottish bar. Through a legal investigation, he recovered for himself the title of Baronet, which formerly had been held by the representatives of the Hamilton family, but which had been suffered to lapse.

In 1820, at the solicitation of his friends, he was a candidate for the chair of Moral Philosophy in the University of Edinburgh, but failed to receive the appointment, which, through

political influence, was given to John Wilson; but in 1821, he was appointed to the chair of History in the University, through the suffrages of the faculty of advocates, who were patrons of this chair. In this capacity, he delivered several courses of lectures on the history of Modern Europe, also on general literature.

Hamilton also contributed to the Quarterly Magazines, and otherwise accomplished a great amount of literary work. He examined the claims and exploded the pretensions of Phrenology as a science of mind. He reviewed Cousin's philosophy of the unconditioned, also Brown's works, and wrote on the philosophy of perception, on logic, and unfortunately for himself, on mathematics.

In 1829, he married his cousin, Janet Marshall, who proved to be a very helpful wife, assisting and encouraging him in many ways. It may be mentioned, as a matter of interest, that their daughter, in co-operation with Miss E. E. C. Jones, translated from German into English, *Microcosmus*, the great work of Lotze.

In 1836, Hamilton was elected to the Chair of Logic and Metaphysics in the University of Edinburgh, which position he held for the next twenty years. This position was what he desired, and was exactly suited to his taste. As a philosopher, Hamilton exerted a most powerful influence, not only over Scottish youth, but throughout the philosophic world.

Hamilton's lectures on Psychology and Metaphysics, as well as those on Logic, were written in the winters of 1836-37 and 38, usually shortly before they were to be delivered. They were repeated, year after year, as long as he occupied the chair of philosophy.

In 1846, he published an annotated edition of Reid's works, appending notes which exhibited critical thought and an extensive and profound knowledge of the history of philosophy. Instead of spending his time on Reid's works, which were scarcely worth the pains, we believe that he would have done a greater service to mankind, had he devoted his time, learning and energy, in producing a work on the History of Philosophy.

In logic, he elucidated, more clearly than had before been done, the distinction between the logical quantities of comprehension and extension—the comprehension *connoting* the

collection of attributes common to all the individuals of a species or to all the species of a genus, and the extension *denoting* all the individuals of a species, or all the species of a genus characterized by the common attributes. He showed how we could reason in either quantity, emphasizing that of comprehension, as the form usually overlooked. Thus, we can reason in extensive quantity: The class morally responsible beings belongs to the class free beings; man belongs to the class morally responsible beings; therefore, man belongs to the class free beings. In comprehensive quantity, we reason: The attribute responsibility involves the attribute free agency; man has the attribute responsibility; man, therefore, has the attribute free agency.

Hamilton claimed originality for his doctrine of the thorough quantification of the predicate, making eight categorical propositions instead of the four usually recognized: the affirmatives, all S is all P, all S is some P, some S is all P, some S is some P; the negatives, any S is not any P, any S is not some P, some S is not any P, some S is not some P. No doubt Hamilton thought that these propositions were unambiguous, but this is true of only four of them. The other four are all ambiguous. The last especially, some S is not some P, as Mr. De Morgan has shown, has nothing to contradict it, or is always true, except when S and P denote the same individual by different names.

Relation is the important thing in logic, and in extensive quantity, only four relations between the terms of a proposition are possible: one is co-extensive with the other, one is excluded from the other, one is subordinate to the other, or one intersects the other. If in case of subordination, we always take, as we may, the subordinate term for the subject, we can write: S is co-extensive with P, S is excluded from P, S is subordinate to P, S intersects P. Denoting these relations by (C), (E), (S), (I,) placed between the terms, we can write: S(C) P, S (E) P, S (S) P, S (I) P, which are read as above.

We give the syllogisms which prove co-extension, exclusion, subordination, and intersection, using the notation (C), (E), (S), (I). These conclusions are proved in order, thus:

1. (C). $\begin{cases} M (C) P, & S (C) M, \therefore S (C) P. \\ & P (S) M, & S (E) M, \therefore S (E) P. \end{cases}$
2. (E). $\begin{cases} P (C) M, & S (E) M, \therefore S (E) P. \\ & P (E) M, & S (S) M, \therefore S (E) P. \\ & P (E) M, & S (C) M, \therefore S (E) P. \end{cases}$
3. (S). $\begin{cases} M (S) P, & S (S) M, \therefore S (S) P. \\ & M (C) P, & S (S) M, \therefore S (S) P. \\ & M (S) P, & S (C) M, \therefore S (S) P. \end{cases}$
4. (I). $\begin{cases} M (C) P, & S (I) M, \therefore S (I) P. \\ & M (I) P, & S (C) M, \therefore S (I) P. \end{cases}$

It will be interesting to represent the arguments by Euler's notation with circles. These syllogisms are unambiguous, and perfectly clear. I give the above as a contribution to logic. Reasoning, it is to be remembered, is an indirect comparison. The relation of two terms to each other is determined by their separate relation to the middle term.

As to psychology, it is quite clear that Hamilton's classification of the faculties of the mind, as the cognitive, the emotive, and the causative, is a great advance beyond that given by Brown, though he is certainly wrong in including desire under the causative phenomena, rather than under the emotive, a mistake characteristic of the Scotch philosophy. Desire is a feeling rather than volition.

In his use of the term *consciousness*, Hamilton, though clearly right in not making it a special faculty, seems to waver between its use as a compendious term, co-extensive with all the cognitive powers, and its use in a special sense, which he calls *self-consciousness*, as affording a knowledge of all the phenomena of the mind; but this designation, self-consciousness, is improper, unless by *self*, he means the acts and states of the mind—its cognitions, feelings and volitions, and not the mind itself. The truth is, we are conscious of the phenomena of the mind; but we know the ego, or mind itself, by reason, that is, by rational intuition, as the condition, or *sine qua non*, of mental phenomena.

In maintaining his doctrine of perception, which he called *Natural Realism*, Hamilton exerted all his strength, which was indeed formidable, as his antagonists knew to their cost. He seems to teach that we are immediately conscious of external objects, as in the following passage: "For example, I see the inkstand. How can I be conscious that my present modification exists, that it is a perception, and not another mental state,—that it is a perception of sight to the exclusion of every other sense, and finally that it is a perception of the inkstand, and of the inkstand only,—unless my consciousness comprehends within its sphere the object, which at once determines the existence of the act, qualifies its kind, and distinguishes its individuality. Annihilate the inkstand, you annihilate the perception; annihilate the consciousness of the object, you annihilate the consciousness of the operation."

It is true that if you annihilate the inkstand, you annihilate the perception; but it is not true that if you annihilate the consciousness of the object, you annihilate the consciousness of the operation. Hamilton holds that when we see an inkstand we are conscious, not only of the perception, but of the inkstand. We have knowledge, it is true, of the inkstand, but mediate knowledge through the sensations which it causes in us; but consciousness is immediate knowledge. Between the sensation and the idea of the inkstand, there may be no process of reasoning, but there is, at least, a judgment as to the object causing the sensation, and the idea, or appearance, embodies this judgment. Of this idea, as our own mental construction, we are, of course, conscious; but the idea, as our own construction, formed to account for the sensation, and of which we are conscious, is to be distinguished from the inkstand itself, the cause of the sensation.

On the other hand, Hamilton seems to teach that we are not conscious of the external object. He says: "What is the external object perceived? Nothing can be conceived more ridiculous than the opinion of philosophers in regard to this. For example, it has been curiously held (and Reid is no exception), that in looking at the sun, moon or any other object of sight, we are, on the one doctrine, actually conscious of those distant objects, or on the other, that those distant objects are those really represented in the mind. Nothing can be more absurd; we perceive through no sense

aught external but what is in immediate relation and immediate contact with its organ." Then we are not conscious of the sun nor of the inkstand. In perception we are conscious of the perception and of the idea, but not of the object.

A system of philosophy, to be impregnable, must be based on the necessary principles of reason. Contingent facts, known empirically, can form no adequate basis for philosophy; for such facts not being necessary, may or may not be; though the facts do not constitute philosophy, yet philosophy should account for the facts.

The primary laws of thought are either laws of *sequence* or laws of *harmony*. Take the law of causality: *Every event must have a cause*. Hamilton derives this law from the impotence of the mind to conceive an absolute commencement; but *impotence* is no warrant for a philosophical principle. The fact is, reason is *potent* to apprehend, not that every *thing*, but that every *event* has a cause; for non-entity cannot spring into being. Eternal existence is, therefore, a reality. Imagination, it is true, cannot picture eternal existence, but that does not disprove its reality; for imagination cannot show its impossibility. It is not impossible to the reason. On the other hand, an absolute commencement, though it can be pictured by the imagination, is impossible to reason. It is reason, not imagination, that deals with fundamental truth, and this explains why the common sense of all intelligent minds, in choosing between the contradictory alternatives, a cause for every event, and an absolute commencement, rejects the absurdity of an absolute commencement, and asserts that every event must have a cause. An event without a cause, Hamilton can't see how it can be; I can see that it can't be.

The principle of causality, the reason of *being*, is one branch of the generic law of *reason and consequent*, the other branch being merely the reason of *knowing*. Thus, rain causes the ground to be wet; it is thus a reason of being, and it may also be a reason of knowing. The witness of the ground, after a drouth, is a reason of knowing that it has rained, but it is not the cause of the rain, or the reason of being.

The laws of harmony of which Hamilton gives three, that of *identity*, of *non-contradiction*, and of *excluded middle*, can be more fully presented:

The law of *identity*, in its positive form: *A thing is itself*; in its negative form: *A thing is not any other than itself*.

The law of *congruents*: *Two congruent propositions may be both true, or both false, or one true and the other false*.

The law of *conflictives*: *Two conflictive propositions cannot both be true*.

The law of *contraries*, the species of conflictives not universally inclusive: *Two contraries cannot both be true, but may both be false*.

The law of *contradictories*, the species of conflictives universally inclusive: *Two contradictories cannot be both true nor both false*.

The names here given tell what these laws are applicable to, as *congruents*, *conflictives*, *contraries*, and *contradictories*. The name, for example, of *excluded middle*, does not tell the kind of propositions to which it is applicable, that is, to *contradictories*.

In his treatment of space and time, Hamilton was too greatly influenced by Kant. The contradictory propositions: *Space is finite*, and *space is infinite*, cannot be affirmed on equal authority. The imagination is impotent to conceive the infinity of space, but it cannot prove it finite. On the other hand, reason clearly apprehends that there is no limit beyond which there is no ulterior space. Reason, therefore, knows that space is not finite. In knowing that the proposition, *space is finite*, is false, reason knows its contradictory, *space is infinite*, is true.

Hamilton accepts the existence of God on faith, not on the evidence of reason; but that there is an eternal ultimate reality, involving the possibility of all actual existence, reason intuitively apprehends, otherwise there never would have been anything.

That Hamilton was great is manifest in all his writings. His works will live and be read for all coming time, yet his philosophy will be modified.

2. *Ferrier* (1808-1864). James Frederick Ferrier was the son of John Ferrier and the grandson of James Ferrier, intimate friend of Sir Walter Scott. His mother was the sister of Professor John Wilson.

James Frederick was born in Edinburgh, and received his earliest education at the manse of Rothwell, Dumfriesshire,

in the family of Rev. Dr. Duncan, through whose influence he acquired a love for the Latin poets, Vergil, Ovid, and Horace, which he never lost. He attended later the Edinburgh High School, and the University of Edinburgh from 1825 to 1827. He entered Magdalen College, Oxford, where in 1831, he took the degree of Bachelor of Arts. In 1834, he spent some time at Heidelberg; and in 1837, he married his cousin, the daughter of Professor John Wilson. He studied law, and was admitted as an advocate in 1832.

Ferrier formed an intimate acquaintance with Sir William Hamilton, and lectured for him in the session, 1844-5, during Hamilton's illness.

On the death of Prof. Wilson, Ferrier was an applicant for the vacant chair of Moral Philosophy, but failed to receive the appointment. He failed likewise as an applicant for the chair of Logic and Metaphysics which became vacant by the death of Hamilton. He, however, received the appointment of Professor of Civil History at Edinburgh, and in 1845 was elected Professor of Moral Philosophy at St. Andrews, which position he held till his death.

Ferrier contributed a series of articles for Blackwood under the title, *An Introduction to the Philosophy of Consciousness*. The collected works of Ferrier have been published in three volumes, entitled, respectively, *Lectures on the Early Greek Philosophy*, *Institutes of Metaphysics*, and *Philosophical Remains*. These we notice in the above order.

It is safe to assert that no more interesting book on Greek Philosophy was ever written than that of Ferrier's. He had a clear conception of what Philosophy is in itself, and what a History of Philosophy ought to be. He exhibited clearly the significance of the Ionic Philosophy, and the Eleatic, and the obscure systems of Heraclitus and Pythagoras. He entered sympathetically into the spirit, and traced the connection of the theories of Empedocles, Anaxagoras, Democritus, the Sophists, Socrates, Plato, Epicurus and Zeno. A few points only in this history, it is needful to mention.

Ferrier dwells with favor on the principle of *change*, brought forward by Heraclitus, and called by him *becoming*, a combination of *being* and *not-being*. It is, however, at once evident that *change* cannot be the *first* or *ultimate* principle;

for change itself is an effect brought about by the action of *cause*, which is truly the ultimate or first principle. Cause is also apprehended by reason, which is an essential requisite of a first principle, while change is known empirically, either experienced in consciousness, or perceived through the senses, which excludes it from being a first principle.

Ferrier also accepts the opinion attributed to Heraclitus that contrary determinations enter into the constitution of every object. This is true, if by contrary determinations we mean *diverse attributes*, as any form, as spherical, may combine with any color as red; but it is not true, if by *contrary* we mean *conflictive*, as for example spherical and cubical.

It is true that objects are undergoing continuous changes, and Ferrier would say, when water is raised from the freezing to the boiling point, calling the successive temperatures, *a, b, c*,—that *a* is *not-a*, and *not-a* is *b*, that *b* is *not-b*, and *not-b* is *c*, and so on till the water boils. But if *a* is *not-a*, and *not-a* is *b* then *a* is *b*; if *b* is *not-b* and *not-b* is *c*, then *b* is *c*, and since *a* is *b* and *b* is *c*, then *a* is *c*, and so on. Therefore, the water is freezing and boiling, and has all intermediate temperatures at the same time! Ferrier declares that the law of confictions holds *not-a* and *b* apart, since it holds *not-being* and *being* apart, as incompatible. Yes, it is true that absolute *not-being* and *being* are held apart, as incompatible; so also is the *not-being of a* and the *being of a*; but not the *not being of a* and the *being of b*, which are not incompatible, though not identical; for *not-a* may be *c* or *d*.

Again Ferrier says a body falling in a vacuum changes its velocity every instant, and that no calculus can tell what its velocity is at any instant, since at the instant it has any velocity, it has another velocity; but that is the very thing the calculus can tell, and this velocity can be stated in common language, so as to be understood. Its velocity at any instant is the distance it would fall the next second, if at that instant, gravity should cease to act.

In distinguishing between sensation and thought, and in, assigning the superiority to thought, Ferrier awards, in the antagonism between Socrates and the Sophists, the palm to Socrates. Both parties said: *Follow Nature*, but what is nature? The Sophists said *Sensation*; Socrates answered *Thought*. The fact is, man has both sensation and thought.

Why ignore either? Yet to reason, as the distinguishing characteristic of man, should be assigned the control.

Ferrier upholds Plato in his doctrine of *innate ideas*. He says: "It may be asked, for example, in what sense are the conceptions expressed by the words, *animal*, *man*, *tree*, to be regarded as innate? I answer, that these conceptions are not innate, if we suppose them to denote, as most people do, some faint or vague representation of animal, man, or tree; nothing which is representable as an object is, in any degree, innate, and therefore these conceptions, if they are innate, must not express anything which can be represented as an object. What then do these terms denote? They denote the fact that, on the occasion of an animal, a man, or a tree being presented to the mind, the mind thinks not merely of the one man, the one animal, or the one tree, but of something wider, in short of a class, which class is to be construed to the mind not as an object, but as a fact or law; a fact or law by means of which unity is given to a number of our resembling impressions. Viewed in this way, the conception *man* may be said, with perfect truth, to be innate. I place him (man) under a class, that is, under an idea wider than himself." The *class* and the *idea*, however, are not identical; the class is the collection of objects, the idea, as here used, is the *concept* of the class—the collection of attributes common to all the objects of the class, and by the possession of which the individual is known to belong to that class. But is the idea (concept) innate? No; it is created by the mind by comparing individuals of the class, abstracting and combining their common qualities. Ferrier's doctrine of *innate ideas* is decidedly in opposition to the ordinary logical doctrine of the formation of classes and concepts.

In his *Institutes of Metaphysics*, Ferrier has undertaken to develop philosophy as a body of reasoned truth; "because while truth may, perhaps, be undiscoverable by man, to reason is certainly his province and within his power;" he therefore concludes that "a system which is reasoned without being true is always of higher value than a system which is true without being reasoned." Ferrier's aim is worthy of his ambition; his failure is in details, and in restricting philosophy to necessary truth, thus shutting it off from the facts of experience which mainly absorb our attention,

relating, as they do, to the joys and the sorrows of life. Fundamental truths, the necessary conditions of the phenomenal, are at once apprehended by rational intuition. The philosophy which accounts for sensations, appetites, instincts, emotions, affections, desires and aversions, will never lose its interest for the human mind. The truths of reason account for the facts of experience. Ferrier says: "All certainty depends on rigorous evidence—on strict demonstrative proof." This is not true either of axioms, or of the facts of consciousness, which are as certain as demonstrated truth.

In justification of the polemic character of his system, Ferrier says: "The object of philosophy is the correction of the inadvertencies of ordinary thinking; and as these inadvertencies are generally confirmed, and never corrected by psychology, and are thus converted from oversights into something worse, it is further the business of philosophy to refute psychology. This is *what* philosophy has to do." Philosophy may properly correct the errors of psychology; but it should not make war on psychology itself, which aims to be the true science of mind.

As each deliverance of ordinary thinking, according to Ferrier, contradicts some necessary law or truth of all reason, he confronts the natural opinions, and the psychological doctrines which conform to them, with the necessary truths or laws, which they contradict, stating first the necessary laws, and facing each with the counter proposition expressing the ordinary opinion, or the corresponding error of psychology. It is, however, the business of philosophy not only to overthrow error, but to establish positive truth. Ferrier thus repudiates the *common sense* scheme of Reid and the Scotch philosophy.

Ferrier treats of philosophy in three divisions: *Epistemology*, or theory of knowledge; *Agnoiology*, or theory of ignorance; and *Ontology*, or the theory of being. This order of procedure is the reverse of the order of ordinary thinking, which is the secret of so many failures. The questions of being cannot be properly answered till the questions of knowledge and ignorance have been decided.

Ferrier contends that the unit or *minimum* of knowledge, in regard to what is known, is *Object plus Subject*, and that

these, though distinguishable, are inseparable in cognition. This is true. Knowledge implies an object known, a subject that knows, and synthesis of subject and objects; but in knowing the object, the subject knows itself; the two are known together, but in a different way. The object is known empirically, if a fact, but rationally, if a necessary truth, and in either case, as *not-self*; the subject is always known rationally, as *self*. Knowledge is not self-supporting; it requires, as its indispensable condition, an *ego* or subject that knows. The ego in knowing an object, refers the knowledge to itself, in saying *I know that object*. That knowledge is impossible without a subject is at once apprehended by rational intuition. The subject is, however, not strictly conscious of itself, though conscious of the knowledge of an object; that is, it does not know itself empirically, but it rationally apprehends the necessity of itself as the indispensable condition of knowledge, and that whenever it knows any object, otherwise knowledge is impossible. The ego, however, being always present, is not made a special object of attention, and on this account, the rational intuition of self is unobtrusive, since the attention is usually directed to the object. The subject however, may, by a special effort, be made the chief object of reflection.

Ferrier discusses the *Minimum* object of knowledge, before he answers the question. What is knowledge? what is it to know? How is knowledge distinguished from belief? Knowledge involves certainty; but does certainty always involve knowledge? Knowledge excludes doubt, so often does belief.

Ferrier contends, and rightly too, that independent matter is not only unknown to human intelligence, but that it cannot be known by any intelligence, and is thus shut out from all cognition, by a necessary law of reason; for cognition of matter implies along with it, a rational apprehension of the knowing mind. But we are to note that it is not the independent existence of matter, but the independent knowledge of matter that is thus shut out. Ferrier then says: "By these considerations matter *per se* is reduced to the predicament of a contradiction." A contradiction is self-destructive; but it is not matter *per se* that is self-destructive, but a knowledge of matter *per se*. The impossibility of matter, *per se* has not been proved.

The above answer, Ferrier anticipates, and endeavors to set it aside, thus: "The contradiction besieges, not merely the knowledge of the thing, but the thing itself. The difference between the two contradictions may be illustrated, in this way. The cognizance of a circle is contradictory, unless that figure be presented, either really or ideally, to the mind. This contradiction, however, is limited exclusively to the cognizance; it does not extend to the circle. A contradiction of this kind would leave matter, *per se* altogether unaffected. But the cognizance of a centerless circle is not only a contradictory cognizance, the object of it is, moreover, a contradictory object. A centerless circle is absolutely incogitable in itself." Yes, and we may add impossible in itself, for by definition, a circle has a center from which all the points of the circumference are equally distant. Ferrier then goes on to say: "The contradiction which attaches to matter, *per se*, is of this character. Matter *per se* is a contradictory thing, just as much as a circle without a center is a contradictory thing." This Ferrier has signally failed to show, though he attempts it thus: "In the case of the centerless circle, the object is contradictory, because it lacks an element (to wit, the center) which is essential to the constitution, not only of every known, but of every knowable circle; and in like manner, matter, *per se* is contradictory, because it wants the element (to wit, the me) which is essential to the constitution not only of every known, but of every knowable thing. It is thus certain that matter *per se* is a contradictory thing, and that the contradiction (as these remarks have been introduced to show) cleaves not only to the cognition but to its object."

The center is a point of the circle which is impossible without it; but Ferrier has not shown that matter is impossible without the subject, which is no part of the matter but only a part of the object of cognition. Matter may exist, though it cannot be known, apart from the subject. Did Ferrier know all matter?

Ferrier then contends that matter, *per se*, as an object of knowledge, is the contradictory; yes, as an object of knowledge; for an object of knowledge implies a subject; that is, a known object implies a knowing subject; but Ferrier has not shown that matter, *per se*, as a reality, is the contradictory. Where is the contradiction? If it is asked how can it be

known that matter, *per se*, is a reality? The answer is, it is not needful to show that; but only to show that Ferrier has failed to prove that matter, *per se*, is not a reality. He has taken the burden of proof upon himself; let him carry it. Idealists in general resort to the expedient of asking their opponents to prove that there are external material objects, when the burden of proof, that there are no such objects, falls upon the idealists themselves; this they neither have done nor can do. It is not simply the reality of matter that brings it into relation with mind, but the conception of the reality.

Ferrier contends that matter *per se* is the contradictory; but the contradictory is self-destructive and impossible; yet Ferrier holds that "this system is as far, as any system can be, from maintaining that matter *per se* is a nonentity—a blank." . . . "The materialist supposes that, according to idealism, when a loaf of bread ceases to be a phenomenon of consciousness, and is locked away in a dark closet, it must turn into nothing. . . . No—in the absence of all consciousness, the loaf, or whatever it may be, lapses, not into nothing, but into the contradictory." Contradictory to what? to itself? Then it lapses into the impossible, for the contradictory is the impossible. The appearance or idea of the loaf vanishes, but not the loaf itself. Suppose after a week, the loaf, for the time, not thought of, the closet is opened, and the loaf is found to be moldy, what has been going on in the mean time? There was an object there, apart from the idea.

As a compact example of reasoning, Ferrier's *Metaphysics* ranks with Spinoza's *Ethics*; its study is a valuable discipline, but as a body of information, it reminds one of the Latin proverb:

Parturiunt montes, nascetur ridiculus mus.

The *Philosophical Remains* consist of papers on philosophical subjects published in Blackwood's Magazine, also several occasional lectures delivered at various times, and deemed worthy of publication. They exhibit the characteristic clearness and attractiveness of all of Ferrier's writings, and will abundantly repay for their perusal. This is especially true of the articles on the *Philosophy of Consciousness*, *Reid*, and the *Philosophy of Common Sense*, and *A Speculation on the Senses*.

Ferrier, however, overestimated the influence of his works, when he took it for granted that they would overthrow the older Philosophy and Modern Psychology.

3. *McCosh* (1811-1884). James McCosh was born in Ayrshire, Scotland. After acquiring his primary education at home, he received his university training at Glasgow and at Edinburgh. He was both a Theologian and a Philosopher.

While at Edinburgh, he wrote an essay on *Stoic Philosophy*, for which, on account of its merit, he received, on motion of Sir William Hamilton, the honorary degree of Master of Arts.

In 1835, McCosh was ordained minister of the church of Scotland, and in 1839 became pastor at Brechin, where he was active in the movement for the establishment of the Free Church, which was organized in 1843. While at Brechin, he published his book entitled *Methods of Divine Government, Physical and Moral*, which Hamilton commended by saying: "It is refreshing to read a work so distinguished for originality and soundness of thinking." This book laid the foundation for his reputation as a philosophical thinker.

In 1841, he was elected professor of Logic and Metaphysics in Queen's College, Belfast, where he distinguished himself as a lecturer. Jointly with Professor George Dickey, in 1856, he wrote *Typical Forms and Special Ends in Creation*, and in 1862, the *Supernatural in Relation to the Natural*. In 1866, he published *Intuitions of the Mind Inductively Investigated*, being a *Defense of Fundamental Truth*. It is, however, somewhat difficult to understand what the inductive method has to do with fundamental truth, which is at once apprehended by rational intuition. Truths reached by induction are not fundamental.

There is, however, an interesting relation existing between intuition and induction which may be discovered by the investigation of the nature of *cause*. We find by our experience, for example in the effort we make to lift a weight, that cause is the efficiency of force or power. In this case, the effort, the exertion of power, is an object of observation; but in an external event, we do not observe the efficiency. How then do we know that an external event requires a cause? We know it by the intuition that *non-entity cannot spring into*

being, for that would require *action* of which mere nothing is incapable. This is the real intuition, and it is known at once by reason, not by induction.

As it is true of any event that it requires a cause, we may generalize by induction and affirm that *every event requires a cause*; but this generalization by induction is not the intuition that any particular event requires a cause. The real intuition is known at once by reason, that is by rational intuition, but the generalization of the intuition, which is not intuition, is reached by induction.

The induction here employed is not ordinary probable induction in which a certain thing is found by observation to be true of many instances of a class, that is of all the instances examined, and is therefore probably true of the whole class; but is a perfect induction, not the ordinary case where the number of instances are limited, and each has been examined and the fact found true; for the number of events are indefinite, or practically infinite. But it is known by rational intuition that each has a cause, then by a perfect induction, we know that every event has a cause.

It is interesting to note that after making the generalization that every event requires a cause, we can reach, by *deduction*, the conclusion that any particular event has a cause. Suppose we witness an occurrence. The witnessed occurrence is identical with an observed event. The occurrence is an event. Then we can say: Every event has a cause; this occurrence is an event; therefore this occurrence has a cause. But as this occurrence is identical with this particular event, we can say this particular event has a cause.

McCosh also published *An Examination of Mill's Philosophy* in which he makes some telling hits.

In 1865, McCosh was elected president of New Jersey College at Princeton, and gave to the institution a wide reputation and greatly enlarged its usefulness.

In 1869, McCosh published a treatise on Logic entitled *The Laws of Discursive Thought*. In this treatise he gave much thought to the discussion of concepts.

McCosh gave a series of lectures on *Christianity and Positivism* in 1871, at the Union Theological Seminary in New York.

McCosh engaged in a controversy with Mark Hopkins on the fundamental principle of Ethics, Hopkins maintaining the opinion that benevolence is the fundamental principle, while McCosh held that other principles are combined with benevolence in forming the foundation of virtue. McCosh found Hopkins a worthy foeman.

In 1875, McCosh published a book entitled *The Scottish Philosophy*. This book, which is very interesting and valuable, treats of Scotch philosophy for the period extending from Hutcheson to Hamilton. In the same year he wrote a reply to Tyndale's Belfast lecture.

In 1887, McCosh published two volumes on *Realistic Philosophy*. These volumes contain his mature thoughts forcibly expressed.

In addition to these works, McCosh was a frequent contributor to the *Princeton Review*, and also gave many public lectures. He thus lived a notable and useful life, and will be held by many for the future in grateful remembrance.

Without adding much that is original in thought, McCosh was a stout defender of Scotch Philosophy, not that of Brown or Ferrier, but that of Reid, Stewart and Hamilton.

CHAPTER XXVI

Associational and Empirical Philosophy

1. *Hartley* (1705-1757). To bring the Associational Philosophers together, we go back in time to David Hartley who, by common consent is justly regarded the founder of the Associational School of Philosophy.

His father, the Vicar of Armley, in Yorkshire, designed him for the church, and sent him to Jesus College, Cambridge. Hartley studied under Sanderson, a celebrated mathematician, and distinguished himself so much by his attainments that he was elected a fellow of his college. Feeling that he could not conscientiously subscribe to the Thirty-nine Articles, he abandoned the design of entering the ministry, and devoted himself to the study of medicine, though he remained in communion with the church, deeming it his duty to obey ecclesiastical law as well as civil. He had many intimate friends among the churchmen, as Bishop Butler, Warberton, Law, and Young. Having completed his course of study, he entered upon the practice of medicine, and became a conscientious and successful physician.

At the age of twenty-five, he commenced a series of essays entitled *Observations on Man, His frame, his duty, and his expectations*. In these essays, he exhibited keen observation and original thought. He agreed with Locke in asserting that all knowledge comes from sensation and reflection, and that prior to sensation the human mind is a blank. In the order of time, this, no doubt, is true. Reason is dormant till it is called upon to account for sensation, which it does, not by its innate ideas, but by its innate power of apprehending the necessity of the conditions of phenomena.

Locke accounted for all knowledge by sensation and reflection; but Hartley attempted to account for reflection itself, by showing how from sensation those states of consciousness arise which are remote from simple sensation. He believed that he had discovered what really was the sole

law, which he styled, *The Law of Contiguity, Synchronous and Successive*. This law he applied to explain, not only memory, as had been done by others, but emotion, reasoning, volition, and action, both voluntary and involuntary.

Following Hartley, in this respect, other philosophers of this school are wont to explain every mental state or process by an inseparable association; and undoubtedly, thought may pass from one idea through a second to a third, and the second may be dropped. This may be observed in the course of a conversation.

In his physical theory, Hartley led the way in tracing the intimate connection between physiological facts and psychological states, and thus originated Physiological Psychology. He held sensation to be the result of the vibrations of the minute particles of the nerves, postulating a subtle elastic ether thus caused to vibrate in the interstices of the brain; but the vibration of the minute particles of the nerves is not thought, neither is the vibration of the ether, unless the ether itself is intelligent spirit. We may, however, suppose the ego, the human spirit, to be so intimately connected with the ether, as to experience sensation whenever the ether vibrates, and upon this sensation, the ego, as intelligent, passes judgment, which is thought, and thought awakens emotions, affections, desires, volitions, which transcend sensation.

Hartley's opinion cannot be admitted that reasoning is nothing more than a series of ideas united by association; for it has cogency. The premises are not merely associated with the conclusion, but they necessitate the conclusion. In mere association, the premises would simply lead us to think of the conclusion, but as a matter of fact, the truth of the premises, there being no formal fallacy, compels us to accept the truth of the conclusion.

Hartley also gave attention to ethical and theological questions; but he derives all knowledge of these subjects from sensation. His style is simple and attractive, and his speculations entertaining, whatever may be said of the truth of his conclusions.

The doctrines of Hartley were warmly advocated by Dr. Priestley, who was distinguished in science, and who hoped to reduce the science of mind to a branch of physics, as he

was inclined to materialism. In regard to Hartley, Priestley said: "Dr. Hartley has thrown more useful light upon the theory of mind than Newton did upon the theory of the external world."

2. *Paley* (1743-1805). William Paley, a celebrated theologian and moralist, followed in philosophy the line of thought marked out by Locke and Hartley. Paley had the power of clear statement, and the ability to make a convincing argument. In ethics he was an extreme utilitarian; and in the pursuit of virtue he had his eye on the loaves and fishes, as is seen in his celebrated definition of virtue which he thus states: "Virtue is the doing of good to mankind, in obedience to the will of God, for the sake of eternal happiness." Utility has its place in ethics, both egoistic utility and altruistic; but we should aim to be virtuous, not solely for the reward external to virtue itself, but chiefly for the satisfaction we take in virtue as the most worthy attainment of a moral being.

3. *Bentham* (1748-1832). Jeremy Bentham was born in London. His father, who was wealthy, gave him the advantages of a good education. He early studied Latin and Greek, and became proficient in those languages. He entered Queen's College, Oxford, where he thoroughly studied Sander-son's logic. He received the bachelor's degree, and became a student of law at Lincoln's Inn. He listened with delight to the decisions of Lord Mansfield, and heard the lectures of Blackstone at Oxford.

He investigated the principles on which all sound legislation must be based, and published his views. His reputation as a thinker rapidly extended, and he was consulted, as an authority, in regard to legal principles, by many correspondents in different countries.

In 1823, he established *The Westminster Review*, a journal noted for vigorous thought and liberal opinions.

Bentham was the author of many works, on finance, politics, and morals. Seeking for a solid foundation for both law and morals, he accepted the principle of Beccaria, the Italian jurist, "The greatest happiness to the greatest number." He made a systematic application of this vital principle in his treatises on *Rewards and Penalties*, as also in his writings on Law and Ethics.

Bentham was intimate with James Mill and John Stuart Mill, and in no small degree influenced their speculations.

4. *Mill* (1773-1836). James Mill was born in the village called Northwater Bridge, in the county of Forfar, Scotland. His parents were respectable people, and his mother, who was an ambitious woman, resolved to give her son a good education. He was sent to the Montrose Academy, where he remained till his eighteenth year, and then entered the university at Edinburgh.

Mill enjoyed the friendship of Sir John and Lady Jane Stuart, and was a tutor of their daughter. He was distinguished, at Edinburgh, for his attainments, in Greek and Logic. He greatly admired Dugald Stewart, whose lectures he attended.

After graduating, he was licensed as a preacher, but did not continue to preach, owing probably to doubts he entertained in regard to certain doctrines, and to the great interest he took in the study of history and moral and political philosophy.

In 1802, he accompanied Sir John Stuart, who was a member of parliament, to London, where he soon found literary occupation suited to his mind, and to which he applied himself with great assiduity.

He started a new periodical called *The Literary Journal* which, comprehensive in its scope, was enriched by the contributions of distinguished scholars, Mill himself writing articles for it on history, biography, and on political and social subjects.

In 1804, he wrote a pamphlet on the *Corn Trade* which was the first of his economic writings. In 1805, he married Harriet Burrow. His eldest son was named John Stuart, after his distinguished friend and patron, Sir John Stuart. In 1806, he began his *History of India* on which he was engaged for twelve years.

Mill became acquainted with Jeremy Bentham in 1808, and co-operated with him in elaborating and disseminating his political and ethical doctrines, and by his clear statements and logical reasoning gave to the Utilitarian philosophy wide currency.

From 1806 to 1818, he contributed able articles to various periodicals, such as the *Edinburgh Review*, the *British*

Review, the *Eclectic Review*, and the *Annual Review*. For the *Annual*, he wrote a review of "*Fox's History*" and an article on "*Bentham's Law Reforms*," also one on *Money and Exchange* for the *Edinburgh*. He also wrote on the *Liberty of the Press*, and a severe article on the *East India Company*. Mill co-operated with William Allen in founding and writing for a periodical called "*The Philanthropist*," which was published from 1811 to 1817. He also contributed many valuable articles to the fifth edition of the *Encyclopedia Britannica*.

In 1878, Mill published his *History of India*, which met with great success, and gave him an important position in the India House, in which he gradually rose to the headship of the office.

Mill was a principal writer for the *Westminster Review*, one of his articles was a vigorous criticism of the *Edinburgh Review*. Other articles dealt with English History and with Ecclesiastic establishments.

In 1821, he published his *Political Economy*, and in 1829, appeared his *Analysis of the Human Mind*. In addition to all these labors, Mill took charge of the education of his son, *John Stuart Mill*.

These various labors exemplify the activity of his mind and exhibit the immense amount of intellectual effort he put forth. All his writings show deep logical thought and clearness of expression.

Mill's Analysis of the Human Mind is, however, the work that chiefly claims our attention. We shall make use of the second edition, in two volumes, with valuable notes by Alexander Bain, Andrew Findlater, George Grote and John Stuart Mill.

Mill begins with *sensation*, following, in his exposition of the five special senses, the following order: Smell, hearing, sight, - taste and touch. He considers also the muscular sensations, and those of the Alimentary canal.

Mill properly begins his "*Analysis*" with a discussion of the senses, for they are the means of communication with the external world, pointing unmistakably to the fact that there is an outer world, not ideal, but real.

After an interesting discussion of the senses, Mill passes on to the treatment of *ideas*. He says: "The sensations which

we have through the medium of the senses exist only by the presence of the object, and cease upon its absence. . . .

When our sensations cease by the absence of their objects, something remains; so like, that I call it a copy, an image of the sensation; something, a representation, or trace of the sensation. Another name by which we denote this trace, this copy of the sensation, which remains after the sensation ceases, is *idea*. . . The one class of feelings I call *sensations*; the other class of feelings I call *ideas*."

The consequence of an object exciting any of the senses is more than a sensation. There is the rational intuition of the conditional necessity of a cause of the sensation, and of the subject which experiences the sensation; there is also the judgment inferring what the cause is; also the ideation, or formation of the idea or image representing not the sensation, but the cause, constructed by the imagination, embodying the inferential judgment concerning the cause. The idea is reinforced and made vivid so long as the cause is present, and is strengthened by a co-operation of several of the senses.

The actual sensations induce definite judgments and corresponding ideas giving, in normal cases, clear perceptions answering to the objects. Thus, a tree near by, clothed with verdure, cannot be made to appear denuded of leaves, since the actual sensations will not permit. Going from the tree, we can, by an act of the imagination, call up in memory the idea of the tree representing the actual perception, though less vividly, because of the absence of the sensations caused by the presence of the object. Now, the tree being absent, we can vary the idea, and imagine it stripped of leaves and even of branches, or picture a very different tree, or any other object, in its place.

Mill calls the entire process of perception *sensation*, which term is more properly restricted to the feeling occasioned by the presence of an object affecting any of the senses. The idea formed in the absence of the object has usually but a faint trace of sensation, though in extraordinary circumstances, it may become so vivid as to call back the sensation, and cause an apparent perception of the object. Thus a ghost may be apparently seen by a vivid idea stimulated by credulous anticipation or fearful apprehension.

Mill's greatest service to philosophy is his treatment of the *association of ideas*. This led to the formation of the school of *Associational Psychology*. Ideas, often thought of together, tend, according to Mill, to form an *indissoluble union*, so that when one is revived, the other is an invariable accompaniment. Instead of the word *indissoluble* John Stuart Mill suggested the word *inseparable*, which, however, means much the same thing.

Bain represented the associated ideas as adhering to one another, as if there was an attraction between them. The real explanation is the law: *That the mind tends to act as it has acted before*. The associated ideas having been thought of together, or in immediate succession, the mind passes from the one to the other, since it has passed that way before.

The laws of association can be most clearly expressed as three: 1. *The law of recurrence: Ideas tend to recur*; for the mind tends to act as it has acted before.

2. *The law of integration: A revived train of ideas once begun, tends to completion*; for the mind has completed that train before.

3. *The law of transition: A transition from one train of ideas to another is liable to occur, when the two trains have similar or antithetical links*; for the mind has passed from the similar links to the completion of either train; and in case of antithetical links, since the knowledge of opposites is one, the antithesis is suggested, and the mind passes to the second train, since it has passed that way before. In either case, when the second series is reached, the mind tends to complete that train by the law of integration.

The fault of the *Associational Psychology*, however, is that the philosophers of that school make too much of it, and endeavor to account for almost any process whatever by the inevitable law of association. A good thing may be greatly overworked.

Following the example of Locke, Mill devotes considerable space to the subject of language; and though this part of his work is worthy of consideration, we must pass it without further notice.

In regard to the words *conscious* and *consciousness*, Mill correctly says: "If we are in any way sentient, that is, have any of the feelings of a living creature, the word *conscious*

is applicable to the *feeler*, and *consciousness* to the *feeling*." This is a fine distinction between the mind and its activities. Likewise it can be properly said: If we have any thought or volition, the word *conscious* is applicable to the thinker or willer, and the word *consciousness* to the thinking or willing. Feeling is not the only mental phenomenon. If we are conscious, we are capable of being conscious; but Mill correctly held that consciousness as a capability, is not a special faculty, but an element of any faculty, or a general capability of being aware of what is going on in the mind, and consciousness, as a state, is involved in any mental phenomenon whatever.

Mill uses the expression, *the conception of an object* to signify the same thing as *the idea of an object*. In logical usage, however, the conception of a class of objects signifies the formation of the notion of the qualities common to all the objects of the class. The product of the act of conception is called a *concept*, which is not the same as *idea*; for an idea can be imagined, since it is a mental picture of an object; but a pure concept cannot be *imagined*; it can only be *thought*. The word *imagination*, Mill employs as the name of a *train of ideas*, and shows why it is especially applicable to poetic creations.

In regard to classification, Mill maintains that men resort to classification for the sake of economy in the use of names. He says: "Man first becomes acquainted with individuals. He first names individuals; but individuals are innumerable, and he can not have innumerable names. He must make one name serve for many individuals. It is thus obvious, and certain, that men were led to classify solely for the purpose of economizing in the use of names."

Little account Mill makes of the common qualities, or similar attributes found in all the objects of a class, though these objects have individual attributes that distinguish the objects of the class from one another. The common qualities form the basis of the class.

Classification is, however, of greater value in securing economy of thought than economy of names. If objects were studied singly, the finite powers of man would be overwhelmed by the infinite wealth of nature. Take a flock of a hundred thousand black-birds. It would be a hopeless task

to study them all individually; but they are essentially so nearly alike, that if we study a *few*, we know *all*. The same holds true of the various classes of objects, whether mineral, vegetable, or animal.

The name *denotes* the class itself, with all its subdivisions, down to and including the individuals, called the *extent* of the class; also the name *connotes* all the similar attributes common to all the subdivisions including the individuals of the class, called the *content* of the class. The higher we ascend in classification, the greater the extent and the less the content; and the lower we descend the greater the content and the less the extent. We ascend by generalization; we descend by division; and classification properly embraces both processes.

In division, we find certain agreements running through only a part of a class to be divided. Withdrawing the thoughts from the differences and retaining the agreement is properly called *abstraction*. Mill says: "We have already observed the following remarkable things in the process of naming:

1. Assigning names of those clusters of ideas called objects, as men, fish.

2. Generalizing these names so as to make them represent a class.

3. Framing adjectives by which minor classes are cut out from larger." Mill speaks of "those clusters of ideas called objects, as *man*." Suppose one man says to another, "You are my *idea*." The other man could retort, "You are mistaken. I am myself, and you are *my* idea." Surely we have here a drawn game. The truth is, in such cases, the object is more than an idea. What is the difference in the wealth of two men, one having a million dollars, and the other an idea of a million dollars?

James Mill says the name denotes the attributes and connotes the object, thus reversing the usage of the old logicians; but John Stuart Mill has properly restored the older and better usage, by saying that the name denotes the objects of a class, and connotes their common attributes. James Mill says: Adding the syllable *ness* to black, we have *blackness*, in which all *connotation* is dropped. The fact is, all *denotation* is dropped, while the connotation is retained. The common qualities, or the connotation, or content of the

species cut out from the genus are, of course, associated with the denotation, or extent, and the name of the species, so that the content, the extent, or the name, will call out all with which it is associated.

As to memory, Mill says: "Now these two, 1, the idea of the thing, 2, the idea of my having seen it, combined, make up, it will not be doubted, the whole of that state of consciousness which we call memory." Yet J. S. Mill adds: "The *belief* of my having seen it." We, however, remember other experiences than those acquired through sight. We remember what we have heard, touched, tasted, smelt or thought.

Memory is the present recognition of past experiences; it involves the retention, reproduction, and recognition of these past experiences. In retention without memory, though there is a retiring of the idea from consciousness, yet there is a conserving of the effect, otherwise the past experience could not be recalled. In reproduction there is a recalling of the idea back to consciousness, and the reconstruction of the idea. Recognition identifies the idea as representing a former experience, localized in space and time. There is also involved a belief in our personal identity, and in the trustworthiness of memory. Mill, of course, explains the whole process, as he was bound to do, by the law of association; and his explanations are remarkably clear, calling it "a train of antecedents and consequents of which the present feeling is one extremity."

Personal identity, or the continued essential sameness of the ego, is more than a string of experiences bound together by indissoluble association. I am more than a string of experiences. Memory is proof of personal identity, though it does not constitute it. I could not remember a past experience as mine, unless I were essentially the same being then as I am now. Does the word *I* mean simply a string of associated sensations and ideas?

The chapter on *Belief* is the most important one in Volume I. Mill considers belief under three heads: Belief in events or real existences, present, past, or future; belief in testimony, and belief in the truth of propositions. He says: "In my belief, then, of the existence of an object, there is included the belief, that, in such and such circumstances, I should have

such and such sensations. Is there anything more? It will be answered immediately, yes; for that along with my belief in my sensations as the *effect*, there is belief of something as the cause; and that to the cause, not to the effect, the name object is appropriate. . . The word *cause* denotes the antecedent of a consequent, where the connection is constant. . . From this, it necessarily follows, that between none of our ideas is the association more intimate and intense, than between antecedent and consequent in the order of events."

Again Mill says: "That a cause means, and can mean nothing to the human mind, but constant antecedent, is no longer a point in dispute." On this assertion J. S. Mill says: "So far from being no longer a point in dispute, that it is denied with vehemence, by a large numerical majority of philosophers; and its denial is perhaps the principal badge of one of the two schools which, at this time, as at most other times, bisect the philosophical world—the intuitional school and the experimental." The experimental method may do for science, but it will not do for philosophy, since philosophy is the employment of reason in establishing fundamental principles that shall give unity and harmony to knowledge. Is a constant antecedent the sole meaning of *cause*? It is, if the antecedent is not *efficient*; but if it is not efficient, if it exerts no energy, no influence, it might as well be absent, in which case, no effect would follow; it, therefore is efficient, exerts an influence or is dynamic. Is it not strange that the experimental philosophers, who claim to build on experience, do not consider that they exert their energy whenever they lift a weight? Their own experience ought to teach them that the antecedent is dynamic, that is, more than a mere antecedent. Philosophy requires a rational basis. If the antecedent exerted no influence, the consequent would not follow. Whatever be the belief, Mill invariably explains it by the principle of association. He says: "Our first assertion was, that in every instance of belief, there is indissoluble association of ideas. . . Our second assertion was that cases of indissoluble association admitted by all men to be this, and nothing more, are acknowledged as belief. . . There is not a more decisive instance of the identity of belief and association than the dread of

ghosts. . . There is here, indisputably a case of insoluble association." Mill has been successful in showing that association enters into belief; but in many cases, belief depends on evidence, at least on probable evidence, taken as the reason for the belief, and evidence is more than mere association. When the evidence is conclusive, the belief is transformed into knowledge.

Mill attempts to show that all evidence, including that of syllogistic reasoning, is resolvable into association. Why is not, All P is M, all S is M, \therefore all S is P, just as valid as, all M is P, all S is M, \therefore all S is P? The conclusion depends on the right relation of P and S to M, not on their association with M.

In Volume II, Mill carries forward his investigations by his ever ready law of association, that a former experience is recalled whenever anything recurs which was known along with that experience in time or place.

He resumes the discussion of language and considers especially the subject of names, as relative terms, and abstract relative terms. This is one of the most interesting and instructive chapters in the whole work, and will well repay careful study. He then passes on to numbers, privative terms, space and time.

In regard to quality, Mill says: "The names of all qualities of objects are names of sensations. Are they anything else? Yes; they are the names of our sensations, with the connotation of a supposed unknown cause of those sensations. As far, however, as our knowledge goes, they are names of sensations, and nothing else. The supposed cause is never known; the effects alone are known to us."

This quotation brings out the difference between the experimental and the intuitional philosophy. We experience the effects, the sensations, and the experimental philosophy says that is all we know, and virtually, that is all there is; the intuitional philosophy says, we know that there is a cause for the sensations, whether we know the specific cause or do not know. There is a cause for the peculiar taste of salt, and a different cause for that of sugar, though we may not be able to account for either, or to explain the reason for their difference. In many cases the difference of sensations is clearly explicable. Thus an iron ball three inches in

diameter exerts a greater pressure on the hand than a ball one inch in diameter, because it contains more matter, every particle of which has weight, and adds to the sensation of pressure.

Again Mill says: "When the smell of a rose is perceived by me, or the idea suggested to me, immediately all the other ideas included under the term rose, are suggested along with it, and their indissoluble union, presupposed. But this belief of the previous indissoluble union of each of those sensations with all the other sensations is all which I really mean when I refer each sensation to the rose as its cause." The sensations are united because the qualities which excite them are united in the object called the rose. The sensations, or their ideas, are united in experience, and thus associated, so that any one of them will call up the rest. When a person takes the rose you are admiring, and gives it to another, does he transfer your sensations or the cause of them?

As to time, Mill says: "Succession, without objects, is precisely the meaning of the word time." That is, from a train of sensations or ideas, of whatever nature, abstract the succession, and this abstract, this succession is time. To my mind, time is that in which things persist and succession takes place. At first thought, this would seem to mean, that, without things or succession, there could be no time; but before things existed, or succession took place, supposing them not to be eternal, there was time—that in which things could persist and succession take place, if things should come to be or succession should occur; that is, time is the condition, the opportunity, the possibility of persistence and succession. If there should be no succession, no change, but a continuance of all things as they are, time would still be a condition of that continuance; hence, succession, or change, is not time, though it is the chronological antecedent of our idea of time. If there should be no continuance of things, but an unceasing succession or change, time would still be a condition of that succession or change; hence time is not the continuance of things. Time, then, is that which renders both continuance and succession possible; it is their condition, or that without which they could not be.

In regard to space, Mill says: "The word space is an abstract, differing from its concrete, like other abstracts,

by dropping the connotation (denotation). In all cases abstract terms can be explained through their concretes, because they note or name a part of what the concrete names, leaving out the rest." This may be illustrated by taking a cord, a wire, or a rod, and leaving out the matter, we have length. Take a cubic foot of wood, or of iron, or of stone, and dropping the matter, we have the geometric cube. This may aid us in reaching the idea; but when we have the idea, a cubic foot, as a geometric object, without reference to the concrete matter, remains as a limited form of pure space. Likewise we may form the idea of a sphere, which we may enlarge indefinitely, and if we drop all limitations, we have infinite space. If there were no matter, would space be annihilated? If all mind should go with the matter, though there would be no knowledge of the reality, would space go too?

Mill derives the idea of motion from tactual and muscular sensations, as in moving the tips of the fingers of the right hand along the bare left arm. We have here a continuous sensation in the tips of the fingers, local change of sensations in the left arm, and muscular sensations in the right arm and the idea of force or energy involved in the effort to move the right hand. The ideas of space, time, and motion are also involved. The movement may be followed by the eye, and thus ocular sensations are blended with tactual and, muscular, till finally motion can be detected by the eye alone. Motion implies the space through which an object moves, also the time required for the passage of the object from one point of its path to another. Any change in the motion of a body requires force, that is, a cause, a dynamic antecedent.

In regard to personal identity, we have a series of associated sensations and ideas, past and present, including the memory of the past and a consciousness of the present. Does this series constitute the ego? Is it I? Mill says: "I believe that a train of antecedents and consequents which forms the existence of other men, has also formed my existence."

J. S. Mill adds in a note: "There is a bond of some sort among the parts of the series which makes me say they were the feelings of a person who was the same person throughout, and this bond to me constitutes my ego." We do not say,

I was the past series of sensations and ideas, or I am the memory of that series, neither do we say I am the consciousness of the present ideas and feelings, but I remember the past and am conscious of the present. I am not sensations, but I have sensations; I have ideas, but am not ideas, nor a train of ideas and feelings. The *ego* holds the experiences together.

Mill begins his discussion of *reflection* by quoting Locke: "That notice which the mind takes of its own operations." He then says: "Reflection is nothing but consciousness; and consciousness is the having sensations and ideas." Reflection is, however, more than simple consciousness, or being aware of what is passing in the mind; it signifies the study of these phenomena, their examination, discrimination or identification, and classifications.

A careful investigation of reflection reveals the following processes: *Abstraction*, the withdrawal of the thoughts from irrelevant phenomena; *attention* to the phenomena desired to be understood; *analysis*, the separation of these phenomena into their elements; *synthesis*, or putting together again the elements found by analysis; *comparison*, or ascertaining resemblances and differences; *discrimination*, the distinguishing of differences; *identification*, the detection of sameness or resemblance; *classification*, or assigning the unlike to different classes, and the like to the same class; *denomination*, the naming of classes and individuals, and *definition*, the description of things by genus and differentia that enables us to discriminate or to identify.

Pleasure and pain, Mill correctly says can be known only by experience. The idea of pleasure he identifies with desire, and the idea of pain with aversion, each with a reference to the future. It seems, however, that desire involves the wish to enjoy pleasure, as well as the idea of it; and that the aversion to pain combines, with the idea of pain, the wish to avoid it. Hope is a compound of the emotional element desire with the intellectual element expectation based on the probability of realization. In like manner, fear is a compound of aversion and expectation. They agree in the intellectual, but differ in the emotional element.

Mill has noted the fact that it is not always the immediate cause of pleasure, as food, that is most eagerly sought after,

but very frequently the more remote cause of pleasure, as money, the means of affording many pleasures, and of gratifying innumerable desires. Men desire wealth, power, knowledge, wisdom, the passports to dignity and to fame, the means of securing the friendship, the favor, or the subserviency of their fellows; and they have strong aversion to their opposites—poverty, impotence, ignorance, folly, contemptibility. It is regarded praiseworthy to cultivate the domestic affections, patriotism, philanthropy, and benevolence.

The motives to action spring from the sensations, the appetites, the instincts, the emotions, the affections, as love or hatred, and the desires or aversions. These are not strictly causes of volition, but are reasons in view of which the ego makes its choice and decides to act.

Virtue involves purity, decision, independence and heroism. The specific egoistic, or self-regarding virtues are prudence, courage, temperance, chastity, and the economic virtues of, industry, frugality, and enterprise. The altruistic virtues, embrace sympathy, justice and benevolence, including also, pity, compassion, mercy, gratitude, honesty and veracity. These virtues command the approbation of mankind, and the opposite vices their detestation. The virtues are linked together by association, so likewise the vices.

To possess the virtues, to exhibit them in conduct, is by common consent, considered right, and is approved by the individual conscience, and fully justified by the good consequences. The vices are condemned by society, by the individual conscience, and by their evil consequences. The obligation to do right and to avoid wrong finds, in the good or evil consequences, its final confirmation. As Mill says: "With the idea of our own acts of virtue, there are naturally associated the ideas of all the immense advantages we derive from the virtuous acts of our fellow-creatures. When this association is formed in due strength, which it is the main business of a good education to effect, the motive to virtue becomes paramount in the human breast."

In regard to *Will*, Mill says: "The object of the inquiry is to find out what that peculiar state of mind or consciousness is by which action is preceded. From all men it receives the same name. It is called *Will* by everybody; and by everybody this will is understood to be a state of mind or conscious-

ness. . . The will was invariably and justly assumed as the cause of the action; but unhappily there was always assumed, as a part of the idea of this cause, an item which is found to be altogether imaginary. In the sequence of events called cause and effect, men were not contented with cause and effect; they imagined a third thing called *force* or *power*, which was not the cause, but something emanating from the cause, and the true and immediate cause of the effect."

The fact is, the cause is the force or power which produces the effect, though it may be connected with other elements in an antecedent object. An antecedent, without force or power, might as well be absent, but if the cause is absent, the effect will not occur; it has, therefore, something to do with the effect, or is efficient.

Mill says: "In all this, however, there is nothing but the idea of an antecedent and a consequent, and a fixed order of association. . . The actions of a human being may be of two sorts: 1. Those which are called actions of the body; 2. Those which are called actions of the mind. . . The actions of the body are all of one sort. They consist essentially of that action of certain fibers which is called contraction.

. . . Muscular or fibrous contractions follow, 1st, sensations; 2d, ideas." Muscular contractions may follow a stimulus terminating in a ganglion, and not reach the brain. In this case there is no sensation of which we are clearly conscious though the ganglion responds to the reported irritation; but suppose a mosquito lights on your left hand, and commences to satisfy his appetite. The nervous excitement which follows is carried to the brain. A sensation follows, and you *will* to knock off the intruder by a movement of the right hand. Here you are conscious of a sensation and a volition, and a movement of the right hand. The *effort* to get rid of the intruder reveals the nature of cause as *antecedent energy*. The pain from the bite was a reason for the volition which caused the movement for relief. In like manner, volition and action may have their origin in an idea which awakens desire that becomes a reason for volition, the cause of action. The desire awakened by the idea is, however, the reason, not the cause of the volition. The ego itself *wills*, that is, causes the volition, and through the volition, the action.

Mill gives numerous and interesting examples of muscular contraction immediately following a sensation or idea without the intervention of the will, a result of habit or instinct; and in case of volition, he holds: "that our power of willing consists in the power of calling into existence the appropriate idea; that the power of the will is not immediately over the muscle, but over the idea."

Even if this were the case, the will has an indirect power over the muscle through the intervention of the idea; but the idea, of itself, is not of the nature of a cause; yet the idea and the muscular action have been so often associated, that the ego could scarcely will the one without willing the other. When I reach forth my hand and take up a book, consciousness informs me that I not only willed the idea, but the act.

I have been quite explicit in treating of James Mill, chiefly, because he was a leader in making the psychological method prominent, and for the reason that he was a distinguished representative of the school of Associational Philosophy.

In Ethics, Mill was a Utilitarian. His son, John Stuart Mill, says of him: "In his personal qualities the Stoic predominated. His standard of morals was Epicurean, inasmuch as it was Utilitarian, taking as the exclusive test of right and wrong, the tendency of actions to produce pleasure or pain." This is confirmed, as is seen, in his description of *The Book of Ethics*, for which he gives the alternative title: "*The Book of Rules* for regulating the actions of human beings, so as to deduce from them the greatest amount of good, both to the actor himself and to his fellow-creatures at large." This is not objectionable, if *praiseworthiness* is regarded a greater good than *praise*, and *blameworthiness* a greater evil than *blame*.

CHAPTER XXVII

Associational and Empirical Philosophy—(Continued)

5. *Mill.* (1806-1873). John Stuart Mill was born in London, and was instructed by his father. He began the study of Greek when three years of age, that of Arithmetic at five, and the study of Latin and Algebra at the age of eight. He read a great amount of both Greek and Latin, and began Logic when twelve and Economics when thirteen.

In regard to his education Mill says: "I do not believe that any scientific teaching ever was more thorough, or better fitted for training the faculties than the mode in which Logic and Political Economy were taught me by my father." He read Adam Smith's *Wealth of Nations* and Ricardo's *Theory of Rent*. He says: "It was my father's main object to make me apply to Smith's more superficial views of Political Economy, the superior lights of Ricardo, and detect what was fallacious in Smith's arguments or erroneous in his conclusions." Thus he was taught to think for himself.

Mill read a great deal of history, taking notes as he read, and rehearsing the substance to his father, as they took their walks together before breakfast. He was thus under the careful tutorship of his father till he was fourteen years of age. He then left England for France, in company with the family of Sir Samuel Bentham. He spent a year in France, but kept up his studious habits, and recorded in a diary what he found interesting in his experience.

When eighteen, he entered the India House as clerk in the examiner's office, and soon became assistant examiner. The duty of the examiner was to examine the letters of the agents of the company, and write instructions in reply. The many dispatches which Mill wrote gave him experience in practical affairs.

In concert with a few kindred spirits, Mill organized a club which he called *The Utilitarian Society*, the object of which

was the reformation of society by reaching a rational solution of social problems, according to the principles of Hartley, Bentham, and James Mill. He disseminated his views through two newspapers, the *Traveller* and the *Chronicle*. The *Westminster Review* and the *Parliamentary History and Review*, new magazines, were open to him. He wrote many articles for both, some of which exhibited great ability. At Bentham's request, he edited an edition of *Bentham's Rational of Judicial Evidence*, and found the work congenial. He took an active part in a *reading society* which met at Grote's house, and engaged in the debates of a speculative character.

In the autumn of 1826, a crisis occurred in Mill's mental life. He had marked out for himself the career of a social reformer. He says: "I was in a state of nerves, such as every one is occasionally liable to. . . . In this frame of mind, it occurred to me to put the question directly to myself: Suppose that all your objects in life were realized; that all the changes in institutions and opinions which you are looking forward to could be completely effected at this very instant, would this be a great joy and happiness to you? And an irrepressible self-consciousness distinctly answered, No! At this my heart sank within me; the whole foundation on which life was constructed fell down. All my happiness was to have been found in the pursuit of this good. The end had ceased to charm, and how could there ever again be any interest in the means. I seemed to have nothing left to live for."

The cloud did not soon pass away. The fact was, Mill had overworked; he had also starved his affections and his aesthetic nature. He ceased for a time to write, and after a prolonged rest, from writing, though he still continued to read, slowly recovered his health and tone of mind. He says: "The cloud gradually drew off, and I again enjoyed life; though I had several relapses, I never again was as miserable as I had been. . . . I had now learnt by experience that the passive susceptibilities needed to be cultivated as well as the active capacities, and required to be nourished and enriched as well as guided."

He found satisfaction in reading Wordsworth's poems: He says: "These poems addressed themselves powerfully to one of the strongest of my pleasurable susceptibilities, the love of rural objects and natural scenery."

Mill enjoyed the friendship of Mrs. Taylor, a congenial spirit, who afterwards became his wife, and assisted and encouraged him in his literary labors, and who, if his estimate of her was correct, had an intellect not inferior to his own.

Mill served one term as a member of the House of Commons and though he was not an eloquent orator, his speeches commanded attention, and his opinions had great weight.

In addition to many pamphlets and numerous articles for magazines, Mill was the author of numerous important books: *Logic*, 1843; *Political Economy*, 1848; *On Liberty*, 1859; *Representative Government*, 1860; *Examination of Hamilton's Philosophy*, 1865; *Subjection of Women*, 1869; *Autobiography*, 1873; *Dissertations on Nature, Religion, and Theism* (Posthumous), 1874.

Of Mill's magazine articles, the one on Utilitarianism, published in *Frazier's* in 1861, will serve as a type, as it was a carefully reasoned answer to the objections to his ethical theory. In this article he explained that he meant by utility, not only what gave sensational pleasure, but whatever contributed to the pleasures of the imagination, or afforded satisfaction to the reason.

His book *On Liberty*, he describes as a joint product of himself and wife. He says: "The *Liberty* is likely to survive longer than anything else that I have written (with the possible exception of the *Logic*), because the conjunction of her mind with mine has rendered it a kind of philosophic text-book of a single truth, which the changes progressively taking place in modern society tend to bring out in ever stronger relief: The importance to man and society, of a large variety of types of character, and of giving full freedom to human nature to expand itself in innumerable and conflicting directions."

Of Mill's other books, I shall notice the *Logic* at some length and shall then pass on.

For many years Mill had contemplated writing a work on *Logic*. With Whately, whose book on *Logic* he had reviewed, he had accepted the theory that all reasoning can be thrown into the syllogistic form; but he said: "I puzzled myself, like others before me, with the great paradox of the discovery of new truths by general reasoning. As to the fact, there could be no doubt. As little could it be doubted, that all reasoning

is resolvable into syllogisms, and that in every syllogism the conclusion is actually contained and implied in the premises. How, being so contained and implied, it could be now truth, and how the theorems of geometry, so different in appearance from the definitions and axioms, could be all contained in these, was a difficulty which no one, I thought, had sufficiently felt, and which, at all events, no one had succeeded in clearing up.

The fact is, neither premise alone involves the conclusion, and one taking the premises separately, does not see the conclusion, but taking them together he sees the conclusion, which appears to him a new truth, new to him.

Mill maintained the untenable position that the syllogism involved the fallacy of begging the question. He says: "It must be granted that in every syllogism, considered as an argument to prove the conclusion, there is a *petitio principii*. When we say, All men are mortal, Socrates is a man, therefore Socrates is mortal; it is unanswerably urged by the adversaries of the syllogistic theory, that the proposition, Socrates is mortal, is pre-supposed in the more general assumption, All men are mortal; that we cannot be assured of the mortality of all men, unless we are already certain of the mortality of every individual man; that if it be still doubtful whether Socrates, or any other individual we may choose to name, be mortal or not, the same degree of uncertainty must hang over the assertion, All men are mortal: that the general principle, instead of being given as evidence of the particular case, can not itself be taken for true, without exception, until every shadow of doubt which could affect any case comprised within it, is dispelled by evidence *aliunde* and then what remains for the syllogism to prove? That, in short, no reasoning from generals to particulars can, as such, prove anything, since from a general principle we can not infer any particulars, but those which the principle itself assumes as known."

Mill here chose the most favorable case for this view, where the major premise is proved probable by ordinary induction. It is, of course, impossible to establish the major premise, that all men are mortal, as a certainty, as is done in perfect induction where the instances are few, and where it is possible to examine every instance; but from

general experience, it can be accepted, as in the highest degree probable that all men are mortal. Now suppose the question is raised, Is Gabriel mortal? it not being known whether Gabriel is a man or an angel. Now I can say, All men are mortal; Gabriel is a man; therefore Gabriel is probably mortal. Any one can truthfully say, All men are probably mortal, without knowing the existence of any such man as Gabriel; and then when informed that Gabriel is a man, he can say that Gabriel is probably mortal.

Sometimes the major premise is established, beyond question, independently of the knowledge of the particular instances involved. To repeat an illustration before given: Suppose I stand on the summit of a hill, on the sea-shore and see a ship go down with all on board. I do not have to know that John Brown was drowned to know that all on board were drowned, for I may not know that John Brown was aboard; but suppose I learn, the next day, that John Brown was aboard that vessel when it went down. Then I can say that all on board a certain vessel, at a certain time were drowned; John Brown was on board that vessel at that time; therefore John Brown was drowned. Where is there the shadow of the *petitio* here? There is none, hence Mill's statement that every syllogism involves the *petitio* is not true.

Again, I can find the last term of an arithmetical progression of n terms, if the first term is a , the common difference d , the number of terms n , and the last term l , thus:

$$a, a + d, a + 2d, a + 3d, a + 4d, \quad . \quad . \quad . \quad a + (n - 1)d.$$

The coefficient of d being one less than the number of the term, l or the n term is evidently expressed by the formula:

$$l = a + (n - 1)d.$$

Now, suppose I wish to know the last term of a series whose first term is 5, the common difference 3, and the number of terms 100. I write:

$$\begin{aligned} l &= a + (n - 1)d. \\ a + 5, n &= 100, \text{ and } d = 3, \\ \therefore l &= 5 + 99 \times 3 = 302. \end{aligned}$$

I did not have to know this answer, to know the formula.

Again, it may be objected that a deduction from a perfect induction is useless, since the conclusion simply asserts what was already known, when the major premise was established. Thus, Capt. Smith has three sons, John, Thomas and Henry, and these are all of the Captain's sons. John has visited England, Thomas has visited England, and Henry has visited England, as Capt. Smith well knows, and can state as a perfect induction, all my sons have visited England. Now it may not be worth while for Capt. Smith to prove for himself that John has visited England, by saying, All my sons have visited England; but John is one of my sons; therefore John has visited England; for he knew that before.

Let us see, however, whether a legitimate deduction, which will reveal a new fact to some one, cannot be drawn from this perfect induction. Suppose you, from another part of the country, should visit Capt. Smith, and in the course of conversation he should inform you that all his sons had visited England. Suppose the next day you fall in with a young man, a stranger, you would know neither that he was one of Capt. Smith's sons, nor that he had visited England; but entering into a conversation with him, he informs you that he is the son of that Captain Smith with whom you conversed yesterday. Now you can make a legitimate deduction syllogism thus: All of Capt. Smith's sons have visited England; this young man is the son of Capt. Smith, therefore, this young man has visited England. You have deduced a fact new to you and have not been guilty of begging the question.

Mill refers to the common opinion that there are two kinds of reasoning—inductive, from particulars to generals, and deductive, from generals to particulars, and then says: "There is a third species of reasoning which falls under neither of these, and which is not only valid, but is the foundation of both the others. . . The third kind of reasoning is from particulars to particulars." He says: "The proposition that the duke of Wellington is mortal is evidently an inference; it is got at, as a conclusion from something else; but do we in reality conclude it from the proposition, All men are mortal? I answer, no. . . If from our experience of John, Thomas, etc., who were living, but are now dead, we are entitled to conclude that all human beings

are mortal, we might surely, without any logical inconsequence, have concluded, at once, from those instances, that the Duke of Wellington is mortal. The mortality of John, Thomas, and others is, after all, the whole evidence we have for the mortality of the Duke of Wellington." This has the force of truth. But what of the opinion that the reasoning from particulars to particulars is the foundation of both the others, that is of both Induction and Deduction? Take the following example: A president of a college made the following announcement, one morning, at the chapel exercises: "I invite all the Seniors to meet, for a social time, at my house this evening." Any one of the seniors would reason: All the Seniors are invited; I am a Senior; therefore I am invited. Has this, for a foundation, the reasoning from particulars to particulars?

To pass on to Induction; Mill says: "For the purposes of the present inquiry, Induction may be defined, the operation of discovering and proving general propositions. . . . The process of indirectly ascertaining individual facts is as truly inductive as that by which we establish general truths. . . . Whenever the evidence which we derive from observation of known cases justifies us in drawing an inference respecting one unknown case, we should, on the same evidence, be justified in drawing a similar inference with respect to a whole class of cases." The inference, however, is less probable for the whole class than for one individual; for since there is a chance of failure in any one individual case as the inference is only probable for each case, then when the whole class of cases is taken, there is a greater probability of failure, somewhere, than for any one case taken alone.

As to the ground of Induction, Mill says: "Whatever be the most proper mode of expressing it, the proposition that the course of nature is uniform is the fundamental principle or general axiom of Induction. It would yet be a great error to offer this large generalization as any explanation of the inductive process. On the contrary, I held it to be itself an instance of induction, an induction by no means of the most obvious kind. Far from being the first induction we make, it is one of the last, or at all events, one of those which are latest in attaining strict philosophical accuracy. . . . The truth is, this great generalization is itself founded on prior

generalizations. . . In what sense then can a principle which is so far from being our earliest induction, be regarded as our warrant for all the others? In the only sense in which (as we have already seen) the general propositions which we place at the head of our reasonings when we throw them into syllogisms, ever really contributed to their validity."

In founding the great generalization, that *the course of nature is uniform*, on prior generalizations, and at the same time, making it the warrant of those prior generalizations, has not Mill been guilty of reasoning in a circle? The objection that his explanation involves the fallacy of the *petitio principii* is even more forcible than his objection to the syllogism, on the same account; for the major premise was not used in finding the particular cases, from which it was the generalization, while according to Mill's theory, the uniformity of nature is the warrant for those prior inductions of which it is the generalization.

Well, what is the warrant for the principle that the course of nature is uniform, in the realm of cause and effect? All events have their conditions and causes, otherwise they would not take place, since non-entity cannot spring into entity. *Like conditions and causes are allowed by like consequences. Like signifies essentially alike*, not identical. If the effects are not alike, it is because the conditions or causes differ; for whenever two causes are essentially alike, then whatever determines the effect in the one case is present to determine it in the other. The cases, however, must be essentially alike, otherwise there is no warrant for the inference.

Why did not Mill accept, at once, the principle of the uniformity of nature, as a rational intuition? Because, as an empirical philosopher, basing all knowledge on experience he rejected the Intuitionist Philosophy altogether. He says: "The notion that truths external to the mind may be known by intuition or consciousness, independently of observation and experience, is, I am persuaded, in these times, the great intellectual support of false doctrines and bad institutions. By the aid of this theory, every inveterate belief and every intense feeling, of which the origin is not remembered, is enabled to dispense with the obligation of justifying itself by reason, and is erected into its own all sufficient voucher and justification. There never was such an instrument devised

for consecrating all deep-seated prejudices." The reception or rejection of a theory should turn on its truth or falsity, not on the fact that a wrong use is sometimes made of it. Nothing, perhaps, is more frequently used, for wrong purposes, than the tongue; shall we, therefore, cut it out, and cast it to the dogs? In fact, Mill's theory reduces rational philosophy to empirical science.

Mill defines *cause*, thus: "The cause, then, philosophically speaking, is the sum-total of the conditions, positive and negative, taken together, the whole of the contingencies of every description, which being realized, the consequent invariably follows." It will be seen that Mill includes under the term *cause*, the non-dynamic condition as well as the dynamic. The absence of support, then, is as much the cause of the fall of a body as gravity itself. It would, however, accord better with the popular view, which is important, when there is no serious objection, to call the combination of the dynamic conditions the cause, and the non-dynamic conditions, simply the conditions; but Mill's idea of cause is not that of efficiency, but that of immediate and invariable antecedence, which is the theory of Hume and of James Mill; but there is more in cause, as we have before shown, than immediate antecedence.

Mill's theory of the four methods of experimental inquiry, which he calls, the *Method of Agreement*, the *Method of Difference*, the *Method of Residues*, and the *Method of Concomitant Variations*, exhibits clear and profound thought. In fact, his extensive treatise on Inductive Logic is a monument of untiring industry and deep research, unrivaled in this field of investigation, and merits the sincere thanks of every lover of science. The subject, however, in consideration of our limited space, is too extensive to follow minutely in a detailed examination. We must be content with one brief quotation, as a specimen of his method: "Let *A*, then, be an agent or cause, and let the object of our inquiry be to ascertain what are the effects of this cause. If we can either find or produce the agent *A* in such a variety of circumstances that the different cases have no circumstances in common except *A*; then, whatever effect we find produced in all our trials, is indicated as the effect of *A*. Suppose, for example, that *A* is tried along with *B* and *C*, and that the effect is *A B C*; and suppose that *A* is next tried with *D* and *E*, but without *B*

and *C*, and that the effect is *A D E*. Then we may reason thus: *B* and *C* are not effects of *A*, for they were not produced by it in the second experiment; nor are *D* and *E*, for they were not produced in the first. Whatever is really the effect of *A* must have been produced in both instances; now this condition is fulfilled by no circumstance except *A*. The phenomenon *A* can not have been the effect of *B* or *C*, since it was produced where they were not; nor of *D* or *E*, since it was produced where they were not. Therefore *A* is the effect of *A*."

Mill sharply criticizes Hamilton's theory of the relativity of knowledge, but as this criticism, though severe on Hamilton throws no new light on Mill's doctrine concerning the relative of knowledge, it need not be considered in this connection.

Mill's theory of space, however, exhibits the inherent weakness of the empirical philosophy. He says: "Space is the muscular sensation we experience, for example, in moving the hand from one point to another. Space a muscular sensation!

Mill discusses a great variety of phases of philosophy, and in all of these discussions displays great knowledge and acute critical skill, and though he fails in doing justice to necessary truths, yet he commands our respect for his candor and ability, and may be justly regarded as one of the most eminent thinkers of the world, and well worthy of the high consideration with which he undoubtedly will always be regarded, by all who honor high attainments and noble character.

6. *Bain* (1818-1903). Alexander Bain, Professor of Logic, in the University of Aberdeen, continued the investigations in the line of Empirical and Associational Philosophy, adding important contributions by his investigations in Physiological Psychology.

His principal works are entitled *The Senses and the Intellect*; *the Emotions and the Will*; *Mental and Moral Science*; *Psychology and Ethics*; *Logic, Deductive and Inductive*.

It will not be necessary to enter upon a detailed discussion of these works, since they follow essentially the course taken by the two Mills, and present really no new phase of Philosophy. I shall, therefore, content myself with a notice of only a few points of Bain's doctrines:

He says: "The operations and appearances that constitute mind are indicated by such terms as feeling, thought, memory, reason, conscience, imagination, will, passions, affections, taste. But the definition of mind aspires to comprehend, in few words, by some generalization, the whole kindred of mental facts, and to exclude everything of a foreign character."

In speaking of "the operations and appearances that constitute mind," Bain identifies mind with its phenomena. If "the mind is the sum total of subject experiences," as Bain elsewhere declares, then mind is not that which thinks, feels and wills, but is the thinking, feeling and willing, apart from any thinker, feeler or willer; but the recognition of a phenomenon on its recurrence, implies a spiritual subject enduring through the period from the occurrence of the phenomenon to its recurrence, and therefore distinct from the fleeting phenomena. The discrimination of one psychical phenomenon from another can be explained only by referring them to a common subject, which, being differently affected by them, discriminates the one from the other. Memory does not constitute personal identity, neither do the ever shifting phenomena of which we are conscious. Memory is the proof of personal identity, and the shifting phenomena find their explanation in the ego, and so far as reason can see, can have no other foundation.

Again Bain says: "We are incapable of discussing the existence of an independent material world, the very act is a contradiction." We can, of course, know nothing of an external world that is not in any way related to our minds; but we do not know, and are not warranted in affirming, that nothing exists unknown to any human mind.

As to the *Will*, Bain says: "The word 'choice' gives us one of the modes of designating the supposed liberty of voluntary actions. The real meaning of this word, that is to say, the only real fact that can be pointed at in correspondence with it, is the acting out one of several different promptings. When a person purchases an article out of several submitted to view, the recommendations of that one are said to be greater than of the rest, and nothing more needs really be said in describing the transaction. It may happen that for a moment the opposing attractions are exactly balanced, and

decision is suspended thereby." But suppose he must make the choice then and there. The motives, being equal, do not compel choice; but he does decide, and therefore the power of decision is in the person and not in the motive, which is only an inducement, not a cause.

Bain goes on to say in case of balanced motives: "The equipoise may even continue for a long time; but when the decision is actually come to, the fact and the meaning are that some consideration has risen to the mind, giving a superior energy of motive to the side that has preponderated. This is the whole substance of the act of choosing." That is, according to Bain, the motives are the causes of volition, and the supposition that there is an ego that makes the decision, in view of motives as reasons, is a fiction; that is, there is no ego that deliberates and chooses, but there is only deliberation and choice as operations without an operator, save the motives which produced them.

Again, Bain says: "The designation 'liberty of choice' has no real meaning, except denying extraneous interference. . . . But, as between the different motives of my own mind, there is no meaning in 'liberty of choice.' Various motives—present or prospective pleasures and pains—concur in urging me to act; the result of the conflict shows that one group is stronger than another, and that is the whole case." Does Bain mean by "me," when he says: "Various motives concur in urging *me* to act," the sum-total of subject experiences that he has had during the course of his life? How can such a conglomerate bundle act? The ego is not the *sum* of the phenomena, but the *subject*, and when one says: "I will do it," he means that he has made the decision, and will perform that act himself; and in this, he counts himself not passive but active, not arbitrarily but rationally active, and by "I," he means himself, a personality, not a bundle of operations.

It is, however, due to Bain to state that his works exhibit great ability. The one entitled *The Senses and the Intellect* will especially well repay careful reading; for it introduces the important subject of physiological psychology.

To Prof. Bain great credit is due for enterprise and liberality, as a projector and generous supporter, both in money and in philosophic contributions, of *Mind*, an English Psychological Journal of a high order of merit.

CHAPTER XXVII

French Enlightenment Philosophy

1. *Voltaire* (1694-1778). The importance of Voltaire in Philosophy is not that of an originator, but that of a promulgator of the doctrines of a certain school. As philosophy was not his chief field of work, it is due him, to set forth, though necessarily in the briefest possible manner, the chief facts of his life, and his wonderful literary career.

His early education was intrusted to the Abbe de Châteauneuf, who instructed him in *belles lettres* and *Deism*. He soon showed facility in making verses, and in these attempts, received encouragement.

At the age of ten, he was sent to the Jesuit College, Louis-le-Grand, where he remained seven years. This college not only gave a wide course of instruction, but encouraged dramatic performances which, no doubt, gave Voltaire his taste for the theater.

Coming home from college, he found himself in conflict with his father who desired him to prepare for some profession, regarding literature, the choice of the son, as no profession worthy the name. The young man formally submitted to the will of his father and read law, in pretense, while actually engaged in pursuits more suited to his tastes.

He formed some romantic attachments, and wrote libelous poems for which, to avoid the danger of prosecution, his father sent him into the country, with his friend, the Marquis de St. Ange, where he was supposed to study law; but he spent his time writing essays and gathering the gossip of history which he afterwards used with telling effect.

Returning to Paris, and entering into literary society, he read his tragedy of *Oedipe* privately to his friends, and was introduced to the famous "court of Sceaux," the coterie of the ambitious Duchesse du Maine. For his supposed aid in lampooning the regent Orleans, whom the Duchesse hated, he was banished from Paris. After being allowed to

return, he again fell under the suspicion of again engaging in libels, and by the spy Beauregard, was inveigled into confession, and was arrested and sent to the Bastile, where he recast the *Oedipe* and began the *Henriade*.

An interview with the regent induced him to curb his propensity to sarcasm and libel. His *Oedipe* was acted at the Théâtre Français, and brought him both reputation and money. The next year, the Lagrange-Chancel's libels called *Philippiques*, again brought him under suspicion, and he was informally banished, and spending some time with Villars, he added to his stock of historic gossip.

Later he was employed by the government, as a secret diplomatist; but falling in with his old enemy Beauregard, he got the worst of an encounter. He met with Rousseau with whom he quarrelled. He went to the Hague, and continued his work on the *Henriade* which was first printed at Rouen and afterwards revised.

The *Mariamne*, a tragedy, appeared first with great success, but at length fell into disrepute; it was afterwards revised and regained its popularity.

Insulted by the Chevalier de Rohan, he replied with keen satire for which he was beaten by the servants of the Chevalier. Voltaire sent a challenge, but was himself sent to the Bastile, and shortly after to England. This was an important visit for him, as it gained him distinguished friends, as Young, Pope, Congreve, Malborough, and exerted a great influence on his subsequent life.

Returning to France, he published, in 1731, his *Charles XII*, and in 1733 appeared *Lettres Philosophiques sur les Anglais*, and the *Temple du Gout*. The latter was condemned, searched for, and burned. Voltaire took himself out of harm's way by going to the independent duchy of Lorraine, and dwelt at the chateau Cirey, where he did important literary work, as well as minor work of more fugitive writings. Among the latter, was a pamphlet with the sounding title, *Treatise on Metaphysics*. Though Voltaire knew little of metaphysics, this pamphlet served his purpose, as a vehicle for his ridicule of religion, though softening his attack under the cloak of Deism.

In 1739, he made a journey to Brussels, thence to Paris, and back again to Brussels. He visited Frederick, the

King of Prussia, and this visit laid the foundation for his subsequent residence of three years with the great King. About this time, he published his plays *Merope* and *Mahomet*, and continued his miscellanies, but his main work, at this time, was *Essais sur les Moeurs*, and the *Siecle de Louis XIV.*

Through the influence of Richelieu, he was employed in the fêtes of the Dauphine's marriage, and rewarded by the appointment of historiographer-royal with a salary of two thousand livres. He received medals from the Pope to whom he dedicated his *Mahomet*, and was elected a member of the Academy; but his rising fame provoked envy, and his popularity declined.

On urgent invitation from Frederick the Great, he went to Berlin and spent three years with the King, who notwithstanding his economical habits, treated Voltaire with generosity. It was, however, out of the question for Frederick and Voltaire to live together a great length of time without quarreling. Voltaire also quarrelled with Lessing, the most distinguished author in Prussia.

At Potsdam, the Royal residence, he finished his *Siecle de Louis XIV.*, and began his *Dictionnaire Philosophique*. A quarrel with Maupertuis, the president of the Berlin Academy, led to such a misunderstanding with Frederick as to cause his expulsion from Prussia and as he was not permitted to return to Paris, he found a refuge at Geneva, and bought and fitted up a country house just outside the walls of the city, which he called *Les Delices*; it was a beautiful home, with fine views. Here he fitted up a theater, and had the pleasure of acting a part in one of his own plays. This brought him into conflict with the authorities of the city who had forbidden theatrical performances.

The earthquake at Lisbon gave Voltaire an opportunity to ridicule the orthodox view of providence. This was done first in verse and later in a tale called *Candide*.

His troubles at Geneva induced him to buy property at Ferney on the lake, and he became known all over Europe as the Squire of Ferney. Here he was visited by distinguished men from all parts of Europe, and though he received them with commendable hospitality, yet reserved considerable time for his literary work. Here he lived and labored for many years. He adopted, as a daughter, Reine Philiberte de Varicourt, a young girl of noble family,

though poor, and gave her in marriage to the Marquis de Valette. In gratitude she made the last days of Voltaire as happy as was possible. From her beauty and goodness she received the pet name of *Belle et Bonne*.

In 1778, the last year of his life, Voltaire was invited to Paris to witness the tragedy *Irène* which he had just finished. He left his home, and after five days, arrived in Paris, which he had not seen for twenty-eight years. Though not well, he witnessed his play, and was crowned with laurels. He also met and warmly embraced Dr. Franklin, the world renowned American philosopher.

His time had come, he became seriously ill, and shortly died, whether a Deist or a Christian is not very certain.

The literary works of Voltaire may be grouped as, Theatrical, Poems proper, Prose Romances, Historical Works, Scientific Works, Philosophic Writings, Criticisms, Miscellaneous Writings, Correspondence, so many indeed that the "hundred volumes" of Voltaire has become a current saying. In all the above named divisions, Voltaire did great work, and for literary form, he stands, as an artist, unsurpassed, if not unrivaled; and will ever hold his place among literary men as one of the marvels of the world.

Voltaire's importance in philosophy is not to be attributed to original power as a thinker, but to his gift as a popularizer and disseminator of opinions. His principal philosophic work, *Dictionnaire Philosophique*, gave him the opportunity to exhibit his skill in paraphrasing, which he employed with great effect. He thus set forth his philosophic views, and gave currency to the Physics of Newton and the Empirical philosophy of Locke.

Voltaire commends Locke for deriving from sensation everything found in the understanding, thus giving the history of the human mind instead of romance. He even regards memory and thought as sensation continued and modified, thus carrying sensation far enough to cover the ground assigned by Locke to reflection.

If it be true that mental operations are simply transformed sensations, what then can we know of the infinite and the eternal, or of any form of necessary truth? Voltaire's reply is: "God has given thee, O man, understanding for thy own good conduct, and not for the purpose of penetrating into the essence of the things he has created."

He eagerly accepted Locke's assertion that there can be no valid objection to the opinion that matter can think, thus rejecting the hypothesis of the soul as a spiritual substance, and reducing all reality to God and matter, regarding both as eternal. For he says: "No axiom has ever been more generally received than this, that *nothing comes out of nothing*." He sarcastically observes: "We of the present day are so happy as to know, by faith, that God created matter out of nothing." Just here, if Voltaire were still alive, I would like to ask him whether he regarded the knowledge of the axiom, *Nothing comes out of nothing*, as a modified sensation.

Voltaire held that the belief in immortality was essential to the preservation of morality, and encouraged this belief for its practical value to society.

Pleasure, it would seem, Voltaire found in taking dark views of things, especially of human life, and the prospects of humanity. He dwelt on disasters such as the burial of Pompeii by the eruption of Mt. Vesuvius, or the earthquake of Lisbon, asking the question, as if directed to Leibniz, "If this is the best possible world, what must the others be?" Hence he concludes that if God is good, he is not omnipotent.

Notwithstanding his cynicism, Voltaire proved himself to be a philanthropist by his defense of the oppressed and his compassion for the friendless. He held that morality is the essence of religion, and had little or no respect for dogma. He denounced impostors, and advocated toleration, and urged upon the enlightened and ruling classes of society their duty of caring for the masses. Voltaire was an ethical reformer rather than a metaphysical Philosopher.

2. *Montesquieu* (1689-1755). Charles de Sécondat, Baron de La Brède et de Montesquieu, was of a noble and wealthy family. He was well educated at the Oratorian School of Juilly and at Bordeaux, and was destined to the profession of law. His uncle left him his fortune and an important judicial office, the presidency of a district of France.

The fame of Montesquieu rests chiefly on his three important works: The *Lettres Persanes* were in the guise of letters purporting to be written by two Persians of distinction traveling in Europe. In this book, Montesquieu satirized

the social, political, and ecclesiastical follies of the day, and shocked his grave readers by tales of scandal from social life. The book made sharp hits, was eagerly read, and went through three editions the first year. Its questionable morality, however, prevented Montesquieu's election to the Academy, but for a time only, as he afterwards canceled the objectionable features of his book.

Traveling over Europe, he met Lord Chesterfield in Italy, and they became fast friends. Continuing his travels, he arrived in England, where he remained nearly two years, and acquired a high admiration of the English government and the character of the English people.

His next book was entitled *Considerations sur les causes de la grandeur des Romains et leur decadence*. This was a more dignified book than the *Persanes*, though not so popular in Paris. The salons called the *Persanes* the grandeur, and the *Considerations*, the decadence of Montesquieu; but the *Considerations* was the greater book; it had extraordinary merit. In it Montesquieu dropped scandal, and discussed the more serious questions of politics and sociology. It is a noteworthy incident that a copy of the *Considerations*, annotated by the great Frederick, was abstracted from the Potsdam library by the great Napoleon.

Montesquieu's third and greatest book, called *Esprit des Loix*, contains his mature views on political and social questions, forms of Government, and whatever could affect the condition and happiness of the people. It entitled Montesquieu to be regarded the pioneer in the philosophy of history.

His important views can be thus summed up: That difference of character is determined by difference of circumstances, and especially by the peculiar laws of the state; that it is better to worship duty rather than wealth or social position; that extremes should be avoided and the safe middle course pursued; that absolutism was a great wrong to the people, whether found in the State or in the church; that the prosperity of the people depends not so much upon victory in war, as on public sentiment, love of liberty, patriotism, industry and morality; that the laws of nature are the orderly movements resulting necessarily from the constitution of things; that civil law should reflect the constitution of man; that the prevalence of religion is proof that there is in it something essential to the happiness of man.

Montesquieu considered the English government the ideal of perfection. He won over the educated class to liberal ideas, and made the political doctrines of Locke the common property of Europe. His importance is that of a social philosopher, and his province the philosophy of history.

3. *La Mettrie* (1709-1751). *La Mettrie* was the founder of French materialism. He lost his position as physician in the army on account of his attack on the prevailing medical practice, and for his too free expression of his opinions, at that time unpopular. He was persecuted, but took refuge in Holland, but this refuge was at length denied him owing to the indignation aroused by his work, *L'homme Machine*, the man machine. He fled to Prussia and found refuge with Frederick the Great, who appointed him court reader.

La Mettrie attempted to prove that the difference between the mind of man and that of the brute is one merely of quantity, not quality. He extended the analogy to plants. Animals have something in common with plants; but they also have higher wants, and more enlarged desires. Man has what is common to plants and animals, plus what is peculiar to animals, plus what is characteristic of himself; but the higher we ascend the scale of being, the more numerous the wants, and the greater the struggle for existence.

According to *La Mettrie* we see nothing but matter and its changes, yet we cannot know its real nature. We know its extension, motion, change of form; and we know our sensations, which are qualities of matter, since they always accompany certain organic changes. As thought springs from sensation, it also is a mere modification of matter. To this it may be replied that *La Mettrie* has not shown that the sensation of which we are conscious is nothing but a change in matter. When external objects act on some sense organ, the afferent nerves carry the impression to the brain from which a response is sent back along the efferent nerves, and the muscles move some organ, as the hand. Of this action of the nerves there is no consciousness. Sensation is not a part of the process, but an accompaniment. The quivering of a nerve is neither sensation, nor thought, nor consciousness. The nervous agitation belongs to the realm of matter, the sensation, the thought, the consciousness, belong to the realm of mind. The one is physical, the

other psychical. The states of consciousness are not explicable by the laws of matter and motion. Regarding matter and mind as the two species of the genus substance, the support of attributes, we may possibly find the ground of their union and the explanation of their interaction, in *potency*, the essence of the genus substance, and common to its two species, matter and mind.

La Mettrie was never popular, and was disowned by the materialists themselves; but he will always be known as the inventor of *L'homme Machine*.

4. *Condillac* (1715-1780). Etienne Bonnot de Condillac received holy orders when a young man, and late in life, was presented with the Abbey de Mureau and its revenues. He is the psychologist of the French Enlightenment Philosophy.

Like Locke, he began with a polemic against *innate ideas*—a mere man of straw. There are, of course, no innate ideas, but there are, in an infant, the germs of powers which, when developed, will, under proper conditions, evolve ideas.

Condillac was a voluminous writer, the author of more than fifty volumes. He wrote one of the greatest treatises on economics, entitled, *Le Commerce et le Gouvernement*, which was published in 1776, the same year as Smith's *Wealth of Nations*. The books giving his philosophical opinions are: *L'Origine des Connaissances Humaines*, *Traite des Sensations*, *Traite des Systemes*, *Grammaire*, *L'Art de Ecrire*, *L'Art de Raisonner*, *L'Art de Penser*, *La Logique*, *La Langue des Calculs*.

Condillac derived all mental operations, even Locke's "reflection," from the one origin, *sensation*. Memory, imagination, judgment, reasoning, all actual or conceivable mental processes, are transformed sensations. It is pertinent to enquire, What transforms the sensations? As passive effects, they can not transform themselves. There is, therefore, a power called mind, which is conscious of these sensations, examines them, analyzes, interprets, and classifies them. The memory, the imagination, the judgment, the reason, are not independent powers, but are capabilities of the same continuous ego, which is the very core of personal identity, the very same which each person calls *I*.

Condillac criticized abstract systems, and contrasted their obscurity with the clearness of the concrete system built up

from sensations. He divides philosophic systems into three classes: Systems resting on abstract principles, systems based on hypotheses, systems, like Locke's, built up from the facts of sensation.

Reasoning, according to Condillac, consists in evolving one judgment from another in which it is implicitly involved; that is, the force of reasoning is found in the essential identity of two judgments which differ merely in form. In a series of continued reasoning, each judgment is deduced from the judgment next preceding. This, however, is not true of the syllogism in which the conclusion is derived from two propositions, through the intervention of a middle term. Condillac, however, rejects the middle term in his endeavor to reduce reasoning to the arithmetical form of calculation, an operation purely mechanical; but Condillac objects to the syllogism because it deduces particulars from generals, whereas thought sets out from particulars, and passes on to generals. He therefore accepts inductive reasoning and rejects deductive; but this contention will not stand criticism, since Science employs deduction as well as induction.

Condillac discards the Cartesian test of truth, clearness and distinctness, but makes identity the test, not identity in form, but in essential meaning. He did not begin with doubt, as Descartes began by doubting everything it was possible for him to doubt; for doubt leaves everything undetermined, and to doubt in mathematics is impossible.

Condillac held that we can have a positive beginning in the threefold evidence of fact, of feeling, and of reason. Series of facts are transformations from one initial fact of sensation. There is, therefore, one method of analysis common to all the science, verifying each step by the test of identity, taking mathematics as a model, and nature as a guide.

The development of the faculties of a human being, Condillac illustrated by a statue cut out by a sculptor from a block of marble.

At first it is destitute not only of thought, but of sensation. Suppose that the sensation of odor is first given to the statue by an object, as a flower; attention is awakened, then memory, then the idea of succession, then comparison by a variety of sensations. Let the other senses be awakened, in succession,

in a similar manner, then finally we should have a sensitive thinking being, like man; but it is evident that the statue has no senses to begin with, and could not be given a sensation, nor be converted into a thinking being. But if sensations could be thus awakened, being passively induced, they would have no power of interaction. There would be needed an indwelling mind conscious of the sensations, analyzing them, recombining, comparing, discriminating, identifying, classifying, defining. A sensation is itself and nothing else; it is not an idea, nor a thought, nor a volition; the law of identity will not apply; and Condillac has certainly failed in his attempt to deduce mind from sensation.

5. *Helvétius* (1715-1771). Claude Adrien Helvétius was descended from a good family, mainly physicians. He was handsome in person, agreeable in manners, and ready in conversation. When only twenty-three years of age, he was elected a member of the Academy of Caen, and shortly after, at the request of the Queen, was appointed farmer-general, which gave him a very great income.

Helvétius had a versatile mind, and was capable of excelling in any one of several various pursuits; but finally he entered upon the investigation of philosophic questions, especially those having a moral and social bearing.

His first philosophic work was entitled *De l'Esprit*, taking sensation for its point of departure. Though Helvétius fondly imagined that this book would make him famous, it aroused great opposition. It was condemned by the Sorbonne, by the priests, by the Archbishop of Paris, and by the Pope himself. This opposition, though led by the dauphine, and supported by the church and the influential classes, served as an advertisement for the book. It was published in several languages, and had a multitude of readers. The book did not, however, long maintain its popularity, and in a few years was quite neglected.

Alarmed by the storm which his book excited, Helvétius hurried from France, and took refuge with that friend of persecuted authors, Frederick the Great, who highly esteemed him for his amiable qualities.

Why did *De l'Esprit* raise such a storm? On account of its doctrines, the mere statement of which will answer the question: All man's faculties, memory, imagination, judg-

ment, reason, may be resolved into physical sensations, and he differs not from the lower animals, save in his superior physical organization. Man's self-interests—his desire for pleasure and aversion to pain—are his only springs to action, and afford the final explanation of his conduct. There is no liberty of choice between good and evil, and our ideas of right and wrong vary with the customs of the people. To promote general happiness, it is needful that the people be led to see that the happiness of each is involved in the common welfare, and that the true method of reform is to labor for the renovation of society, and the reconstruction of the government, rather than the reformation of individuals, according to the practice of the church. The inequalities among men depend upon the inequalities of their educational advantages. Helvétius was bitterly opposed to priest-craft, and a strong advocate for freedom of thought, and equality of political rights. But the fact is, society needs the services of the clergy, to lead in social religion, to marry the young people, to bury the dead, and these needs not only call for a class of men, but will insure their support. The abuses incident to the profession can be properly guarded against by the intelligence of the people.

Helvétius prepared another book called *De l'homme*, whose publication was posthumous. In this book, he expresses some noble sentiments: "No one has ever contributed to the public good to his own hurt." "A good man obeys a noble interest." Helvétius taught that we need a more comprehensive morality—one that will harmonize the good of the individual with the welfare of society. He was a tender-hearted man and a philanthropist, and employed his large fortune in disseminating what he believed to be the truth; and though the popularity of his works, after a short success, rapidly waned, yet he advocated certain opinions, especially political, which will yet find general recognition.

The religious point view of Helvétius was Deistic, not Atheistic, and he enlarged on the unknowableness of God. He advocated a rational morality that could be accepted by all the people.

6. *Diderot* (1713-1784). Denis Diderot was born at Langres and educated by the Jesuits. He did not follow his father's advice and choose some regular profession, as Law or Medicine, but entered upon a literary career.

His writings are so numerous that it is out of the question even to name all of them. They extend over a large variety of subjects, and exhibit a mind of great versatility and originality. Suffice it, then, to mention the works that have a philosophic bearing.

In 1745, he made a free translation of Shaftesbury's *Inquiry concerning Virtue and Merit*, adding original notes. In 1746, between the morning of Good Friday and the evening of Easter Monday, he wrote *Philosophic Thought*, and shortly after supplemented it by an essay *On the Sufficiency of Natural Religion*. He wrote the *Sceptic's Walk* in 1747.

His letter on *The Blind*, published in 1749, made him known to the world of letters, as an original thinker. It was written to show the dependence of ideas on the senses. It was, however unacceptable to the authorities, and he was thrown into prison.

A bookseller applied to him for a translation of *Chambers' Cyclopædia*. He consented to undertake the work; but, on reflection, concluded that it would be better to produce an original work which should contain the latest thought of the time, and to this the publisher assented. License for the work was secured, the contributors engaged, who were afterwards known as the *French Encyclopædists*, and Diderot was appointed Editor-in-chief.

After reaching the seventh volume, the work fell under the displeasure of the authorities, and its continuance forbidden. Diderot, however, carried forward the work under vexatious difficulties, in a clandestine manner. By incessant work for twenty years, the *Encyclopædia* was finished and published, though marred through the timidity of the publisher in striking out certain passages he feared might give offense to the authorities. The *Encyclopædia*, however, was Diderot's monumental work, and gave him lasting fame.

Two dialogues of Diderot's *Conversations between D'Alembert and Diderot*, and *D'Alembert's Dream*, are classic in Philosophy. Diderot held that sensibility was inherent in the atom from the beginning; for it is absurd to suppose that a combination of several dead atoms could have life and sensation. D'Alembert raises the question: If we attribute to the original atom sensation, yet how, by the conjunction of such atoms, can a consciousness arise which

has its seat in no one atom but in their aggregate? Diderot replied: All finite individuals, by their inner relation, form one aggregate whole. What do you mean by individuals? There are no individuals. The whole is the one great single individual. The sensations of the atoms blend into one, as the music of the many instruments of the orchestra.

Diderot was noted for his conversational powers, so that it has been said, whoever did not know Diderot as a converser did not know him at all. At his friend Baron D'Holbach's Salon, he charmed a circle of admiring friends by his wonderful gift in conversation.

Diderot, notwithstanding his extensive literary labors, never amassed a fortune. His income did not average more than \$600 a year. Voltaire indignantly exclaimed: Think of Diderot working a whole year for £120, while an army contractor often makes £500 in a single day!

When Diderot wished to provide a suitable dowry for his daughter, he found himself straitened for means, and proposed to sell his library, his most valued possession. The Empress Catherine of Russia, hearing of it, directed her agent in Paris to buy the library at a price of £1,000, and then requested the philosopher to retain the books till she called for them, in the meantime appointed him her librarian with a generous salary.

Diderot was the life and soul and the culmination of the *French Enlightenment Philosophy*, but he contributed little of permanent value to the progress of philosophy, though his insight, clear and brilliant as the light, and his penetrating originality, gave to his views, expressed in his written works, and especially in conversations, the fascination of Romance.

Religious faith as exhibited in the church, he regarded as an evil; for as he believed it inevitably degenerates into dogmas and ritualistic ceremonies, first deforming then displacing true morality. This opinion should have due consideration and the evil results guarded against by those who regulate religious worship.

7. *Holbach* (1723-1789). Paul Heinrich Dietrich Von Holbach, a wealthy German Baron, born at Heidelberg in the Palatinate, came to Paris when a young man, and made it his home for life. He was the center and heart of the brilliant circle of the French Enlightenment Philosophers.

Holbach was a man well-informed, and his excellent

memory placed ready at his disposal his vast store of knowledge. He was quiet in manner, generous to his friends, and tenacious of his opinions. Impassive and inflexible, he was the center of gravity of the group of philosophers, who stately assembled at his salon for conversation.

His principal work, *Système de la Nature*, the Bible of Atheism, appeared pseudonymously in 1770, bearing the name of Miraband, who had died ten years before. No one attributed the authorship to Miraband, and for some time, Holbach was not even suspected, though later the authorship of the book was assuredly known. It reflected the opinions of the brilliant circle, though Holbach reduced the whole to the order of a compact system.

Holbach combined the systems of materialism, sensationism, fatalism, and atheism, hitherto somewhat detached, into one — *The System of Nature*. He thus invokes Nature: "O Nature, Sovereign of all being, and Ye her Daughters, Virtue, Reason, and Truth, be forever our only Divinities!"

He taught that virtue is the art of making ourselves happy through the happiness of others; that nature chastises immorality; that religion applies inefficient remedies by requiring renunciation contrary to human nature; that true morality cures the mind through the body, instead of mythical beliefs; and that the one sure road to happiness is to labor for the general welfare.

Theology is mythology, and class government oppression. Necessity rules in the moral world as in the physical. In fact, the moral world is the physical with superadded consciousness. Since nature is alive, there is no need of the hypothesis of a spirit, as the author and governor of nature, nor of the Soul, as the ruler of the body. The physical organism acted on by external causes explains the phenomena of mind.

Voltaire was greatly shocked by the doctrine of the System of Nature, and called it illogical in its deductions, absurd in its physics, and abominable in its morals. Voltaire's refutation was conducted after the popular method of common sense, rather than by a method strictly philosophical; but Voltaire was a Deist, not an Atheist.

Holbach taught that mythical hypotheses will be abandoned so far as scientific explanations of phenomena are discovered.

8. *Rousseau* (1712-1778) Jean Jacques Rousseau was a native of Geneva. When ten years of age, he was separated from his father who had brought him up in a very irregular fashion.

He led an irregular and wandering life, finding many patrons and friends with whom he usually quarreled, and passed on to other places, finding new adventures, and gaining additional experience. From Geneva to Paris and back again, he wandered many times, and to other places, even to England, at the invitation of Hume. He saw society, and learned human nature, and this knowledge he turned to profit in his writings.

In 1749, the Academy of Dijon offered a prize for the best essay on the subject: *The Influence of the Progress of Science and Art on Morals*. Rousseau won the prize, and at once became famous. His contention was that civilization is too artificial, and that, if we are to attain happiness, we must go back to nature.

He wrote another essay for a prize on *The Origin of Inequality*, which though not securing the prize, was at least equal in merit to the other.

The books which brought him the greatest notoriety were *Emile*, a work on education; *Confessions*, an *Autobiography*; *La Nouvelle Heloise*, a novel; and *Contrat Social*, a political treatise.

The relation of Rousseau to the French Illumination was not that of harmony, but of opposition. He turns from reasoning to feeling, from speculation to conscience, from theological dogmas to the experience of the heart. Morality recedes as knowledge advances. This may be true, at certain epochs, but the experience of mankind, that the greatest happiness attends the highest morality will, at length, be heeded by the human race, but that morality will be based on knowledge.

Social order, according to Rousseau, rests on a contract, not between ruler and people, but between the people themselves, who agree to certain regulations for mutual protection, each citizen submitting to the law for his own good, thus securing the general welfare. The government is the middle term between the citizens as sovereign law-giver

and the citizen as subject. The sovereign is the consensus of political opinion of at least the majority, the subject is the individual citizen.

Rousseau's theory of education is founded on faith in uncorrupted human nature. Let the child, under proper guidance, largely educate himself. His views on education influenced Basedow, Pestalozzi and Froebel.

Proofs for the existence of God are profitable as checks to Materialism and Atheism; but the real evidence is that of feeling. The Soul, the world, God, freedom and immortality, all have the inward assurance of instinctive feeling. Likewise morality finds its authority in conscience, and its justification in its consequences.

Rousseau did not excel in speculative Philosophy; his views were too erratic, yet in educational, social and political matters, he has exerted a wide and lasting influence, largely through his literary gift in making his writings interesting. His political theories were influential in bringing about the French revolution.

We add, at the close of this chapter, that *The French Enlightenment Philosophy* is distinguished more for the brilliancy of its Literature than for the profundity of its Philosophy.

CHAPTER XXIX

Reaction, Eclecticism, Positivism

1. *Maistre* (1754-1821). Joseph de Maistre was of a noble family. His father was president of the Senate of Savoy.

Joseph having completed his studies at Turin, received an appointment in the civil service, and at length became a member of the Senate of Savoy. When Savoy was annexed to France, he went to Lusanne where in 1796, he published a work entitled *Considerations sur la France*. This book was directed against the prevalent skeptical and revolutionary theories of the time, but from a religious point of view.

His most celebrated works, *Du Pape* and *De l' Eglise Gallicane*, were polemics against the philosophy and political views of the philosophers of the so-called illumination. He regarded all such speculations as a crime against order, against religion, and against the well-being of mankind.

De Maistre's opinions can be thus summed up: He denied the possibility of physical causation, and affirmed that all material movement originates from spiritual beings. Let scientists amuse themselves, if they will, with physical phenomena, but let them beware of intermeddling with social and religious questions. The guide of mankind is faith, not reason. God imparts his guiding truth through the church and the state, and not through philosophers. Human reason is a blind guide. There must be an authoritative guide. Free thought should never have been permitted. The mischief began with the so-called reformation, and was continued by the philosophy of the eighteenth century. Voltaire was a buffoon. Montesquieu, Condillac, Helvétius, La Mettrie, Holbach, were disseminators of mischief. The only remedy is to go back and recognize the infallibility of the Pope, and submit to his authority as a heavenly guide. He commended war, the hangman, and the inquisition, as purifying agencies, necessary in the disordered condition of humanity. Man is purely passive, he receives his sensations from without, and his illumination from above.

As the philosophy of the eighteenth century was a wicked conspiracy against legitimate authority, it ought to be crushed. He wrote an examination of the philosophy of Bacon, and made an acrimonious attack on Locke; but he was an able man, and struck heavy blows.

2. *Cabanis* (1757-1808). Pierre Jean Georges Cabanis was the son of a prominent lawyer who was also chief magistrate of a district in lower Limousin.

His early education was intrusted to priests, and at ten years of age, to the college of Brives. He was an apt scholar, but independent and obstinate in his opinions, and so difficult of management that he was dismissed from the college, and left to carry on his studies by himself. He read Locke with delight, and attended some of the university lectures.

He cultivated poetry, and was intimate with the poet Roucher. He became acquainted with Turgot, Diderot, D'Alembert, Condillac, D'Holbach, and the distinguished Americans, Franklin and Jefferson. He was intimate with Mirabeau, and with Condorcet.

Cabanis finally chose the profession of medicine, and studied the mysteries of physiology with the deepest interest. He was a member of the National Institute, and was appointed professor of Clinics.

In the winter of 1797-8, Cabanis read a series of papers on the relation between the body and the soul, which were published in 1802, with some additions, in book form. Though he entertained a great respect for Condillac, he held against him that our sensations were not wholly excited by external causes; for physiological conditions, the internal workings of the various organs of the body, were the causes of sensations of which we are distinctly conscious.

The instincts and appetites, in close relation with the vital feelings, the emotions, the affections, the desires, are all a constant source from which the higher operations of thought take their rise. His works are not to be regarded as contributions to materialistic philosophy, though he says "the brain excretes thought as the liver, bile."

Cabanis maintained that there is a universal instinct, and one force pervading all nature.

3. *Maine de Biran* (1766-1824). Maine de Biran was the son of a physician who gave him a good education. He was one of the life-guards of Louis XVI.

At the breaking out of the revolution, he retired to his estate near Bergœ, where he escaped the horrors of the reign of terror, and as he says of himself, passed *per saltum*, from frivolity to philosophy. This decided his life pursuit, though he was called in the more quiet times which followed to take part in administrative affairs; but he retired to his retreat, at every opportunity, to engage in his favorite study. Maine de Biran had especial aptitude for psychology, and though, at first, he took Condillac for a guide, he soon became convinced that he did not grasp the whole truth in regarding man only passive, receiving impressions and all mental material through sensations excited by external causes; for the body itself, by its internal workings furnishes material for thought, and in connection with this, the will itself consciously directs the train of intellectual processes. If we do not immediately perceive cause, as the source of energy, we are conscious of effort, we feel the exertion of energy. Maine de Biran makes the effort ultimate; but the effort would be impossible without a power which exerts the energy or makes the effort; for manifestly nothing, mere non-entity, cannot make an effort, and the effort is not self-supporting; that is, the effort does not make itself.

Right here we have a rational intuition of the ego, or soul, as the source of psychical activity, and though not conscious of the ego itself, we are conscious of the activities, which require the ego as their indispensable condition. We know phenomena by consciousness, but the ego by reason.

Maine de Biran did not question the truth in Condillac's theory of passivity; but he discovered that it was but half of the truth. He supplemented the passivity by activity, the other half.

De Biran accepted Kant's distinction between phenomena and noumena; yet he differed from Kant in this: Kant accepted the noumenon by faith, Biran grasped the phenomena by feeling, and postulated the noumenon. But the noumenon is not known either by feeling or by faith; for feeling gives phenomena, known immediately by conscious experience, but consciousness deals directly with phenomena, which appear, yet not with noumena which do not appear. Neither does faith give knowledge of noumena, for faith is belief, not knowledge. Rational intuition, however, at once

apprehends the necessity of noumena to the existence of phenomena; for phenomena are not self-supporting, neither can they spring from non-entity into being.

We can now see that empirical philosophy can not deal with noumena, the reality of which it will either ignore or deny. Empiricism is, therefore, a one-sided philosophy, a partial system. Philosophy itself, in its entirety, is both empirical and rational.

Judged by its history, philosophy includes the five phases: Empiricism, Idealism, Skepticism, Mysticism, Rationalism.

4. *Ampère* (1775-1836). Andre Marie Ampère, the originator of the science of Electro-dynamics, was a physicist, a mathematician, and a philosopher, and eminent in all these respects.

He was the associate and friend of Maine de Biran, and for the most part, in agreement with him, as in making the consciousness of the energy of the ego the starting-point in philosophical investigations. His psychological method was that of the English associational philosophers.

He investigated how sensations and ideas are involuntarily associated, and how scientific knowledge is possible through mental activity. He is not content with mere description, but explains the appearance of complex phenomena by the blending or association of simpler elements. Thus, a low voiced reader may not be understood when reading an unfamiliar passage, but may be followed, word by word, each distinctly heard, when he reads a familiar passage, with no increase in the strength of the voice, the words being known are distinctly heard.

In moving an arm, Ampère distinguished between the consciousness of effort, and that of the muscular sensation, since when another moves one's arm, there is a consciousness of muscular sensation, but not of effort. From effort, we learn the nature of cause, as more than antecedent, even as force, or energy, the effort of power.

Though Ampère correctly held that we are conscious of phenomena only, yet he maintained that the relations between the phenomena, involving causality, imply noumenal validity. Cause, time, and space have noumenal reality, though we reach them by way of inference under the form of hypothesis. We apprehend their necessity as conditions of phenomena.

The hypothesis, however, is necessary, and has all the force of a rational intuition, which apprehends the necessity of the conditions of phenomena, not the absolute necessity, but the conditional necessity; that is, phenomena being given, cause must be. We know change empirically, for example, change in the movement of a body; but this change, known by experience, is impossible, without cause, without space, without time. Hence, the necessity of cause, of space, and of time, is infallibly apprehended by rational intuition.

In Maine de Biran's opinion, the passage from the knowledge of self as cause to that of external causes is over a gulf we cannot bridge. Here we encounter one of the profoundest questions of metaphysics. The gulf, however, can be bridged, not empirically, but rationally. The bridge is the principle that *non-entity can not spring into being*. Maine de Biran asks the question: "What experience can teach us whether the forms in which phenomena are co-ordinated are absolute, that is, in things, or whether they are only in the mind which apprehends them? Can external experience ever shed any light on this question which reflection must raise? Do not both possibilities fit in equally well with the phenomena?" The answer is, experience cannot tell, nor perhaps Ampère's theory of relations; but reason can tell. Events are continually happening without our knowledge, away from us, on the other side of the globe, or elsewhere far removed from us. The events are real, the causes are real and necessary, since the events are real; but this necessity is not, as Kant held, merely the subjective necessity of apprehension, but the objective necessity of the cause apprehended. If the events are, the cause must be.

The question is, do we necessarily apprehend what may not be an objective truth, or do we apprehend what is a necessary objective truth? Is the necessity in the apprehension, or in the reality apprehended? Kant's great mistake was in placing the necessity in the apprehension, and this mistake has thrown philosophy on the wrong track from his day to ours.

There is no subjective necessity with the empirical philosophers, while consistently adhering to their theory; for a cause with them is not efficiency, but antecedence, and is

reached by induction, which gives only probability, not necessity or even certainty. This comes from their empiricism; but when they lose sight of their one-sided philosophy, they say, with the rest of mankind, that every event must have a cause, placing the necessity, the event being given, in the objective cause, and not in the subjective affirmation; and in this cause we find noumenal reality, not only in ourselves but in the objective world, which strikes a fatal blow to subjective idealism.

In the course of nature, in the development of science and philosophy, cause is the dynamic agency which explains the tendency of everything to order, to a comprehensive and symmetrical unity.

5. *Cousin* (1792-1867). Victor Cousin began life in troublous times, but was fortunate in receiving a good classical education in the Lycée where he studied eight years. The teaching he received gave him a taste for rhetoric and oratory. On leaving the Lycée he was crowned in the hall of the Sorbonne for an eloquent Latin oration, and thus entered the Normal School of Paris with well-deserved distinction.

In the Normal School, he listened with delight to Laromiguière's lectures on philosophy, which made a deep impression on him, as he was highly susceptible to the influence of powerful minds. He afterwards said: "Those lectures decided the course of my life." He also heard the lectures on philosophy by Royer-Collard of whom he always spoke in terms of great respect. He says: "Royer-Collard turned me, by the severity of his logic, from the beaten path of Condillac, into that of the Scottish philosophy." He was also influenced by Maine de Biran and Ampère.

Cousin's philosophy early shows its eclectic character by combining Reid's theory of immediate perception of external objects with Maine de Biran's doctrine of the consciousness of self-activity, and with Ampère's view of absolute relations. To these, at a later date, he added the doctrine of the absolute reason taken from the German speculative philosophy of Schelling and Hegel. He taught that reason is impersonal, since it is alike in all; but this is because it is not vitiated by the senses. Every man's reason is his own, though similar to that in others.

As professor of philosophy in the Normal School of Paris, Cousin gave lectures on the history of philosophy to enthusiastic audiences, who were charmed with his eloquence. He took the position that all schools of philosophy have elements of truth, and that absolute error is impossible to the human mind, and therefore that the true procedure is the method of eclecticism, to take what is true from all the systems, and form a complete whole. He insisted on method, and said: "As is the method of a philosopher, so is his system, and the adoption of a method decides the destiny of his philosophy."

A conglomerate system, however, will not do; it will lack consistency. There must be unity in the central principles, and these must be fundamental; but having complied with this condition, a philosopher may rightfully be eclectic, for this will secure, or at least tend to completeness.

Cousin gave currency to the division of the faculties into intellect, sensibility and will. His lectures on the history of philosophy are well worth reading, especially his searching review of Locke's philosophy. His most valuable work is, perhaps, that entitled, *Du Vrai, du Beau, du Bien*, that is, the work on the true, the beautiful and the good.

6. *Germain* (1776-1831). Sophia Germain, a lady mathematician and philosopher, investigated the course of development of the sciences and philosophy, and sought for the criterion of truth.

She held that the human mind realizes the need of order and inter-relation to guide in scientific and philosophic researches, and found the sole type of the true in order and proportion, giving unity and harmony to the whole, and including the principle of causality as a special form.

Instead of asking *why* that is, seeking for the final cause or purpose, we are beginning to search for the *how*, and the *how what*; that is, we are tending towards positive philosophy; and this was, at that time, undoubtedly the drift of thought.

7. *Jouffroy* (1796-1842). Théodore Jouffroy emphasized the importance of the psychological method of consciousness or introspection, and exaggerated it to the neglect of both physiology and metaphysics. He carried forward the eclecticism of Cousin with more sobriety, but not with such lofty flights of eloquence.

Eclecticism was also strongly advocated by Damiron, a pupil of Cousin, who in 1828 published a work on French philosophy in the nineteenth century, in which he maintained that eclecticism was a true mean between the school of Condillac, on the one hand and that of theological philosophy on the other, and thus reconciled them in a higher unity.

8. *Saint-Simon* (1768-1825). Claude Henri, Comte de Saint-Simon, was a reformer; and if he is entitled to the name of philosopher, he should be called a social philosopher.

He served as a French soldier in aiding the American colonies to gain their independence from Great Britain. He advocated the project of connecting the Atlantic and Pacific Oceans by a ship canal through the isthmus of Darien.

He took no part in the French revolution, but made some money by dealing in real estate, as he said, to aid him in his proposed reforms. He lost his fortune, but continued to work in poverty.

Saint-Simon was not a systematic thinker, yet, as the founder of French Socialism, he is a conspicuous figure. He had the attractive power to draw around him men of talent; and both Augustin Thierry and Auguste Comte were reckoned among his disciples.

He did not advocate the abolition of private property, but held that capitalists and leaders of society should devote their wealth and influence to the relief of the poor, and the elevation of society.

Saint-Simon in his greatest work, *The New Christianity*, affirms his belief in God, and proposes to reduce Christianity to its essential elements by clearing away its dogmas and excrescences. He said: "The new Christian organization will deduce the temporal institutions, as well as the spiritual, from the principle, that all men should act towards one another as brethren," *an important truth*.

On account of Saint-Simon's religious views, Auguste Comte parted company with him, though Comte, at a later date attempted to organize a religion on the basis of his positive philosophy, the religious nature forcing its recognition in spite of an atheistic philosophy.

After the death of Saint-Simon, the leadership of the Socialistic School was assumed by Bazard and Enfantin. Bazard was thoughtful and logical in his turn of mind; but Enfantin was flighty and impractical, and endeavored to

found a Socialistic church with fantastic rituals, and allowing the immoral practice of free love. Bazard and his followers could not endure this, and withdrew from the fellowship of *Enfantin* and his party, which, on account of their doctrines and practices, was suppressed by the civil authorities.

9. *Comte* (1798-1857) Auguste Comte, the founder of the Positive Philosophy received his elementary education at Montpellier, his native town. At the age of sixteen, he was admitted to the *Ecole Polytechnique*, where he strenuously applied himself to study. After two years at this institution, Comte, taking a leading part in a students' rebellion, was sent home, but he shortly returned to Paris, and supported himself by teaching.

Comte was a great admirer of Franklin, and wrote to a friend: "I seek to imitate the modern Socrates, not in talents, but in the way of living. At five and twenty, he formed a design of becoming perfectly wise [moral], and fulfilled his design. I have dared to undertake the same, though I am not yet twenty." He thought of going to America, but a friend told him that the Americans were so practical, that not even Lagrange, the great mathematician, could make a living there only by land surveying.

By the aid of a friend he attained a position as tutor in the family of Casimir P  rier, at a good salary, but finding the work irksome, he resigned his position after a trial of three weeks.

When about twenty years of age, he became acquainted with Saint-Simon, and was associated with him for about six years. After beginning his own independent career, he wrote to a friend: "I certainly am under great obligations to Saint-Simon; that is to say, he helped, in a powerful degree, to launch me in the philosophic direction I have now definitely worked out for myself, and I shall follow that, without looking back, for the rest of my life." But after six years of association, Comte and Saint-Simon parted company, as the master's pretensions to superiority could no longer be endured by his ambitious disciple, who placed no low estimate on his own intellectual powers. Later in life, Comte so far forgot his indebtedness to Saint-Simon, as to call him a "depraved quack," and to say that his influence over him was merely mischievous.

Comte's marriage was not happy and finally ended in separation from his wife, though they kept up a friendly correspondence. Later, in 1848, Comte formed the acquaintance of Madam Clotilda de Vaux, whose husband had been condemned for life to the galleys. Comte rated her very highly, even extravagantly. She supplied the cravings of his heart, and he deeply mourned her death, which occurred after the acquaintance of one year.

In 1833, Comte was appointed examiner of boys who were candidates for admission to the Ecole Polytechnique at Paris. The salary for this work gave him, with other sources of revenue, a respectable income. He discharged his duties as examiner thoroughly. An incident connected with this work, shows that Comte was not destitute of a generous heart. He wrote to his wife: "I hardly know, if even to you, I dare disclose the sweet and softened feeling that comes over me when I find a young man whose examination is thoroughly satisfactory. Yes, though you may smile, the emotion would easily stir me to tears, if I were not carefully on my guard."

In addition to all his other work, even when writing his *Positive Philosophy*, he gave, for seventeen years, a free course of popular lectures on Astronomy. He lost his position as examiner, and with it half his income, by a needless statement in the preface to the sixth volume of his philosophy, which offended the men who had given him the appointment.

He applied to M. Guizot, Minister of State to the King, Louis Philippe, to establish, in the University, a chair of the *History of Science*, hoping to receive the appointment to this chair as professor. He gave, in substance, the following reasons for the chair: "If there are four chairs devoted to the history of philosophy, that is, to the study of dreams and aberrations of thought through the ages, surely there should be one at least to explain the progress of real knowledge." The chair was not established. Comte says: "The suggestion was at first approved by Guizot's philosophic instinct, and then repelled by his metaphysical rancor."

Hearing of Comte's financial straits, his friend, J. S. Mill, with the help of Grote, Carrie and Molesworth, advanced him the sum of £240. The same was repeated for another year, when Mill, learning that Comte made no effort to mend his own fortune, informed him that he must take care

of himself; but Comte intimated the contribution was due the distinguished author of the *Positive Philosophy* who was working for the good of humanity.

In the later years of his life, Comte endeavored to establish a religion which he called the *Religion of Humanity*. It was to have a ceremonial worship, with a ritual. Thus the very thing for which he quarreled with Saint-Simon, he introduced for his own followers, though he did not call it New Christianity.

Comte's great work, that on which his fame rests, is entitled, *Cours de Philosophie Positive*, in six volumes. Of this work a good abridged English translation was made by Harriet Martineau, and printed in one volume. This translation, approved of by Comte himself, is used in this review.

Comte gives the law of human progress in the following terms: "From the study of the development of human intelligence, in all directions, and through all times, the discovery arises of a great fundamental law, to which it is necessarily subject, and which has a solid foundation of proof, both in the facts of our organization, and in our historical experience. The law is this:—that each of our leading conceptions—each branch of our knowledge—passes successively through three different theoretical conditions: the Theological, or fictitious; the Metaphysical, or abstract, and the Scientific, or positive.

. . . Hence arise three philosophies, . . . each of which excludes the others. The first is the necessary point of departure of the human understanding; and the third is its fixed and definite state. The second is merely a state of transition.

In the theological state, the human mind, seeking the essential nature of beings, the first and final causes (the origin and purpose) of all effects—in short, Absolute Knowledge—supposes all phenomena to be produced by the immediate action of supernatural beings.

In the metaphysical state, which is only a modification of the first, the mind supposes, instead of supernatural beings, abstract forces, veritable entities (that is, personified abstractions) inherent in all beings, and capable of producing all phenomena. What is called the explanation of phenomena is, in this stage, a mere reference of each to its proper entity.

In the final, the positive state, the mind has given over the

vain search after Absolute notions, the origin and destination of the universe, and the causes of phenomena, and applies itself to the study of their laws—that is, their invariable relations of succession and resemblance.”

There is, without doubt, a large measure of truth in Comte's theory of the three stages of human progress; but these stages overlap and are not strictly successive. Many minds, not simply the ignorant, but those highly cultivated, yet hold to the validity of Theological conceptions. Metaphysics shows vitality, and has come to stay. Science, despairing to find the ultimate explanations of things, and though legitimate in its method, and the prevailing stage at the present time, does not go to the depth of things, and is, by its own confession, superficial. *Philosophy is deeper than Science.*

Not knowing the natural causes of phenomena, the human mind, in the early periods, referred them to supernatural agencies. The theological stage, is as Comte admits, the point of departure for the human mind; yet he denies to theological conceptions any validity. He says: “I must remark upon one very striking truth which becomes apparent during the pursuit of astronomical science—its distinct and ever increasing opposition, as it attains a higher perfection, to the theological and metaphysical spirit. Theological philosophy supposes everything to be governed by will, and that phenomena are, therefore, eminently variable, at least virtually. The positive philosophy, on the contrary, conceives them subject to invariable laws, which permit us to predict with absolute precision.

The radical incompatibility of these two views is nowhere more marked than in regard to the phenomena of the heavens, since in that direction, our prevision is proved to be perfect. The punctual arrival of comets, and eclipses, with all their train of minute incidents, exactly foretold, long before, by the aid of ascertained laws, must lead the common mind to feel that such events must be free from the control of any will, which could not be will, if it was thus subordinated to our astronomical decisions.”

But it is a theological conception that with God “is no variableness, neither shadow of turning.” How is the uniformity of the astronomical laws incompatible with the conception of God who is “the same yesterday, today, and ever?”

The stability of the material universe, consequent on the uniformity of the laws of nature, is essential to the continued existence of the inhabitants of the world, as they are at present constituted. If God wills the existence of man on earth, he also wills the uniformity of the laws of nature, and this uniformity, which is the indispensable condition of the act of prevision, is not subversive of theological conceptions, nor incompatible with the idea of God.

Again, in reference to Physics, Comte says: "With this science begins the exhibition of human power in modifying phenomena. In astronomy, human intervention is out of the question—in physics, it begins; and we shall see how it becomes more powerful as we descend the scale. This power counterbalances that of exact prevision we have in astronomy. The one power or the other—the power of foreseeing or of modifying—is necessary to our outgrowth of theological philosophy. Our prevision disproves the notion that phenomena proceed from a supernatural will, which is the same thing as calling them variable; and our ability to modify them shows that the powers under which they proceed are subordinate to our own.

As the phenomena of any science become more complex, the first power (that of prevision) decreases, and the other (that of modifying) increases, so that one or the other is always present to show unquestionably that the events of the world are not ruled by supernatural will, but by natural laws."

But it is a theological conception that it is God's will that man should "have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth." This certainly gives man ample license to modify the circumstances which surround him, and cause them to subserve his interests, and thus to promote his happiness, and this modification is not subversive of theological conceptions nor incompatible with the idea of God.

Comte's classification of the sciences begins with the most simple and general, and passes on to the more complex and special. Leaving out the subdivisions, we have: Mathematics, Astronomy, Physics, Chemistry, Biology, Sociology, This classification follows the historical order according to

which each has passed from the theological, through the metaphysical, into the positive stage. The deductive method of reasoning prevails in the more simple and general of the sciences, and the inductive in the more complex and special. The six groups Comte regards as irreducible. The passage from a lower to the next higher is accomplished by a leap over a gap. The same law holds as to the subdivisions, also as to the organic species. This, of course, does not accord with Darwin's theory of the origin of species. Comte does not establish the discontinuity by the positive method of observation and experiment, but metaphysically and dogmatically, thus forsaking his own methods; but discontinuity, when it is a fact, does not disprove the existence of a common law, more general, as generic, than the narrower laws of the species. The branches of the hyperbola are discontinuous, yet both are represented by the one and same equation.

The transmutation of energy from one mode of manifestation to another raises the question whether continuity or even identity of fundamental cause may not admit of discontinuity of manifestations, and also explain those cases where apparent discontinuity of manifestations has been found, by closer inspection, to resolve itself into continuity. At least later investigations have proved that, in many cases, the hiatus of discontinuity, supposed by Comte, has been resolved into continuity; but the fact of continuity may be regarded as a triumph of the positive method, since it has been found by that method, and not by the metaphysical, and hence that Comte's mistake arose from his forsaking the positive method for the metaphysical; but this is a clear proof that the methods, metaphysical and positive, by their overlapping, are not discontinuous and successive.

Comte objects to psychology, because it is founded upon consciousness or observation of mental phenomena. He says: "In order to observe, your intellect must pause from activity; yet it is this very activity you want to observe. If you cannot effect the pause, you cannot observe; if you do effect it, there is nothing to observe. The results of such a method are in proportion to its absurdity. After two thousand years of psychological pursuit, no one proposition is established to the satisfaction of its followers. They are divided, to this day, into a multitude of schools, still disputing about the very elements of their doctrine."

But instead of its being impossible to be conscious of knowing, it is impossible to know without being conscious of knowing. Consciousness is involved in knowing as an essential element. If I know, I know that I know; for if I do not know that I know, I do not know. In like manner, it may be shown that feeling and volition involve consciousness. We are conscious of all phenomena, all that appear; but there are subliminal operations, not phenomena, of which we are not conscious.

The psychological method has not been so fruitless of good results as Comte supposes. We need only refer to the laws of association and memory, as exhibited by the Associationalist philosophers, of whom James Mill is the typical representative. The more modern work of the Physiological Psychologists has been fruitful in rich results. The means of psychological investigation may be divided into principal and collateral; the principle employs consciousness, reflection and rational intuition; the collateral, uses the works of various authors who have written on the subject; it studies comparative psychology, biology, physiology, anthropology, and sociology; it observes the phenomena of society, and acquaints itself with literature, as found in history, biography, poetry, the novel and the drama. Psychology has established something worth knowing; for writers on economics, on sociology, on ethics, appeal to psychology for fundamental principles.

For logic, Comte would substitute mathematics. He says: "Whatever is found of advantage in logic in directing and strengthening the action of the understanding is found, in a higher degree, in mathematical study, with the immense added advantage of a determinate subject, distinctly circumscribed, admitting of the utmost precision, and free from the danger which is inherent in all abstract logic—of leading to useless and puerile rules, or to vain ontological speculations."

But certainly logic has performed a valuable service in disclosing the fundamental laws of thought—the law of identity, of congruents, of conflictive whether contraries or contradictories, and of reason and consequent; it has also exhibited the doctrine of concepts, of judgments and of reasoning, whether deductive or inductive, and laid down the safe-

guards against fallacy. All this it has done, and which mathematics, notwithstanding its great achievements, has not done.

Comte held strictly to the immutability of natural law; but how did he arrive at this principle? Not by the intuition of reason; for he discarded that method as metaphysical. He must, therefore, have reached it by real induction; but such induction gives only the probable; and therefore the necessary immutability of the laws of nature may not be a fact; and according to the positive method, it can be certain only so far as experience confirms it. It can be extended in its application only by analogy. This accords with the tendency of the mind for generalization; but if it seems to satisfy a subjective craving for certainty, it does it without due warrant; for it has no logical objective foundation, and the positive philosophy is resolved into pure empiricism, and is not a philosophy at all, though it may be good science.

Comte was something of a mystic; he assigned to feeling its due place in human nature, and made it co-ordinate with thought, if not superior to it in importance. His religion of humanity does no discredit to his heart, whatever may be said of its relation to his head. Every religion ought to be a religion of humanity; but is humanity a proper object of worship? *Worship humanity*, is scarcely acceptable as a guiding precept. A better precept is, *Worship God and strive to elevate humanity*. True religion is a *quality*, it has for its first part, *Love to God*; for its second part, *Love to man, or human brotherhood*.

CHAPTER XXX

Later German Philosophy

1. *Mayer* (1814-1878). Julius Robert Mayer, after studying medicine at Tübingen, Munich and Paris, was chosen Surgeon for a Dutch ship bound for Java. After returning, he obtained a position as physician in Heilbronn, his native city.

The indestructibility of matter, by human agency, had already been proved by Lavoisier, and this prepared the way for the kindred truth—the conservation and transformation of energy. Mayer inferred this from a principle of reason—*causa aequat effectum*, rather than proved it by experiment.

The cause, as Mayer held, passes into the effect; it no more passes out of existence than do oxygen and hydrogen when they unite to form water. Motion, when checked, passes into heat, and heat, in turn, produces motion. There is a constant relation between the vanishing cause and the effect into which it is transformed, and this constant relation is the fact of prime importance. The relation, being expressed by a formula, can be applied to mechanics in estimating the effective work of given forces through the intervention of machinery.

Theory, however, needs the test of experiment, and it is only by the combination of the theoretical and the practical that valuable results can be obtained. Mayer's merit consists not only in discovering the principle of the conservation of energy, but in applying it to a variety of physical phenomena.

The law of conservation was also independently discovered by Colding, a Dane, by Helmholtz, and by Joule, an Englishman, and this illustrates, what is often found to be true, that several minds, without intercommunication, often work at the same thing, and reach similar results, illustrated by Newton and Leibniz in the discovery of the Calculus.

2. *Vogt*. (1817-1895). Karl Vogt, a Naturalist and Physiologist, maintained that matter is the only substance;

that the brain is the organ of which consciousness is the function; that thought is to the brain as gall is to the liver, thus either making thought material, or resolving it into the motion of matter—the vibrations of the filaments of the brain.

3. *Moleschott* (1822-1893). Jacob Moleschott took for his principle the conservation of matter, which he held to be never devoid of energy. Force is the constant accompaniment of matter, and circulates with it through the universe; and with force, life; with life, thought; with thought, will; with the most highly organized human brain, the highest thought, the firmest will.

He believed that his standpoint could be regarded one-sidedly materialistic only by those who can conceive matter without force, or force without any supporting substance; it is, therefore, monistic, dealing with two attributes, material and spiritual, in one substance, which is the conception of Spinoza. The opposition it sets up is not that between matter and spirit, but that between a two in one, or a two hopelessly sundered. Of his conception he says: "Since matter is a bearer of force, endowed with force, or penetrated with spirit, it would be just as correct to call it a spiritual conception."

Moleschott's doctrine may be thus stated: The foundation of all reality is substance with two attributes, material and spiritual, and that these are never found apart, but are not always in the same ratio to each other, and so vary as to approach extension and inertia, on the one hand, or the highest thought and firmest will on the other. His principal work he called *Kreislauf des Lebens*.

4. *Büchner* (1824-1899). Louis Büchner held that mind and matter, or to speak more generally, force and stuff, are necessarily and inseparately connected, though he does not attempt to explain the nature of the relation, more than to say that mind is a property of matter, or force a property of stuff; but even this is a matter of belief rather than of scientific knowledge. His famous work, *Kraft und Stoff* was suggested by Moleschott's *Kreislauf des Lebens*.

Büchner holds that the ultimate basis of all being is matter, and that the conservation of matter involves the conservation of energy; that the intricate complexity of the organism,

especially that of the brain, produces certain effects which, bound together into unity, constitute the ego or personal identity, called the soul, the mind, or thought. He also held that force and matter may be regarded as two different aspects or modes of that [substance] which underlies all things.

These two statements are in conflict; for matter cannot be the fundamental reality, if it is only an aspect or mode of something else which underlies all things. May not the whole mystery be solved by calling the fundamental reality *cause*, which manifest material attributes on the one hand and spiritual attributes on the other, and that these two are related by their common connection with cause? Büchner's training as a physician influenced his thinking as a philosopher.

5. *Czolbe* (1819-1873). Heinrich Czolbe was, like Büchner, trained as a physician. He held that the same motion which, starting in the outer world, was carried, without modification, through the sense organs and nerves, to the brain, where it was turned back into a circular motion, giving rise to sensation, thought and consciousness, which are motions in space and wherever such motions occur, whether in the brain or out of it, there is consciousness.

Czolbe admitted the difficulty of explaining the world from a single principle, whether found, as by Büchner in matter, or by Metaphysicians in mind, or by Theologians in God. We reach a reasonable solution by taking the three elements—material atoms, organic forces, and psychical elements found in the world soul, and these elements co-operate in their action and unite in their result, manifesting both physical and psychical phenomena.

Czolbe was a clear thinker, and strove for comprehensible results.

6. *Haeckel* (1834—). Ernst Haeckel, Professor of Zoology at the University of Jena, calls himself, not a materialist, but a monist. He holds to an underlying ground connecting matter and spirit, as manifestations of one common substance, Spinoza's theory.

The psychical life, one of the original elements of nature manifests itself, though varying greatly in degree, from the soul of the atom to the most highly developed human brain.

Psychical phenomena are the activities of the complex nervous tissues of the living organism. The law of the conservation of matter and energy, is the basis of the stability of the universe. The law of substance, according to Haeckel, is the true and only cosmological law.

Haeckel accepts the theory of evolution as expounded by Darwin, and regards Pantheism as the only true system of Theology. His views are forcibly expressed in his writings: *The History of Creation*, *The Evolution of Man*, and *The Riddle of the Universe*.

In *The Riddle of the Universe*, Haeckel says of Spinoza: "We adhere firmly to the pure, unequivocal monism of Spinoza: Matter, or infinitely extended substance and spirit (or energy), or sensitive and thinking substance, are the two fundamental attributes, or principal properties of the all-embracing divine essence of the world, the universal substance." Again, "All the changes which have since come over the idea of substance are reduced, on a logical analysis, to this supreme thought of Spinoza's; with Goethe, I take it to be the loftiest, profoundest, and truest thought of all the ages."

8. *Lotze* (1817-1882). Rudolph Hermann Lotze was born at Bautzen, the district of Fichte and Lessing, and was educated as a physician at Leipzig. His teachers in medicine and physics were Weber, Volkmann and Fechner. Weisse was his guide in philosophy. He graduated the same year, both as a doctor of philosophy and a doctor of medicine, and at once became a docent in both. He was afterwards professor of philosophy at Göttingen, and was elected to the same chair at Berlin, but soon after died.

Lotze's ideal was that of the romantic philosophers, to trace the development and interconnections of the world to one eternal idea. In him were combined the scientific and speculative tendencies, thus leading him to attempt the reconstruction of idealism on a realistic foundation. To accomplish this, he saw that he must avoid, on the one hand, the mistake of romanticism of overlooking the real conditions and mechanical connections of nature, and on the other, that of materialism of taking matter, which is only a framework, for the sum total of reality.

Lotze's point of departure is the mechanism of nature. He endeavored to show, by an analysis of the concept, that an ideal principle is involved, which is the eternal source of whatever is of any value. Ideas represent things, and thoughts the relations of ideas, and hence also of things.

In his medical works, Lotze attributed physical phenomena, not to a mystical vital force, but to the regular operations of universal forces in living organisms; but mechanism constitutes only a part of nature, the spiritual also has its place; it is the relation of the material and spiritual that has interest for philosophy. This relation he traces in his *Microcosmus*, a work which supplements Humboldt's *Cosmos* and Herder's *Ideen*.

The *Microcosmus* treats of psychology in relation to physiology, human culture as shown in history, cosmological theories, and the philosophy of religion.

Lotze holds that spiritual life, at its highest value, is realized only in combination with a mechanical system of causes and losses. It is the business of philosophy, rather than of science, to inquire into the nature and relation of cause and effect, means and end, substance and force, freedom and necessity, matter and spirit, which, in practical life, and in the special sciences, are taken for granted. Philosophy goes deeper than science.

Though the nature of cause, the source of all change, may be learned from experience in the consciousness of effort we make in overcoming resistance, yet its necessity is presupposed by reason whenever there is experience of change, thus implying the interconnection of phenomena. The very conception of nature is of a plurality of real elements in reciprocal interaction; but this mechanical interaction is not the only feature of our conception of nature, which is even impossible without a connecting cause. There must be an all embracing cause to constitute a cosmos, that is, a universe which is all things turned into one system. The one great cause is, therefore immanent, not transcendent. Things in their relation to this ground cause are related to one another. There is, then, an original substance the all embracing principle, the *Deus sive Natura* of Spinoza, which Lotze called the ultimate fact of all thought—the ultimate postulate; it is presupposed in the simplest case of reciprocal action.

Materialism and Idealism are thus reconciled and united. Neither the monads of Leibniz, nor the reals of Herbart afford thought a resting place; the basis must be monistic-Spirit, as Lotze held, which could exert itself as energy at all points, and cause the points of energy to interact. The points cannot be extended solids, however small, for then they would have parts and be divisible; neither are they inextended solids, for then they would be nothing; they are, therefore, points of energy, locally placed, but without extension. This view renders the creation of so-called matter possible and conceivable. What is this one substance or primal cause? We can understand it only by analogy to ourselves as causes; but we know ourselves as subjects of activities or susceptibilities. As finite spirits, we can do and suffer, so likewise can the infinite Spirit.

To obviate objections to freedom, Lotze says: "The soul evolves from itself resolutions, starting points for future movements, . . . if experience convinces us that every event of external nature is at the same time an effect having its cause in preceding facts, it still remains possible that the cycle of inner mental life does not consist throughout of a rigid mechanism working necessarily, but that along with unlimited freedom of will, it also possesses a limited power of absolute commencement." This "absolute commencement," however, is not a commencement from *nothing*, not from antecedent events, but from *mind*, human or Divine. A volition, as an event is caused, and therefore not free, but caused by the ego. The freedom is not in the volition, but in the ego, the subject of the volition, which is not an event, but a being, free to cause its own volitions. Now, because volitions are caused, it does not follow that the cause of the volitions is caused to cause them. The doctrine of freedom does not require free volitions, but a being free to cause them. The ego, as a being, is free, not in its origin, but in its acts.

A perfectly new beginning, not connected with the primal cause, or with anything else, is an event without a cause, and is therefore impossible. Yet it is conceivable and possible that the primal cause can act, at any time, and originate a new line of events, unless its energies are so engaged as to leave no reserved power, thus implying that it had exhausted itself in the universe. Even if the primal cause originates new

events, these events are related to all other events, by their relation to the primal cause, and we would still have a universe. The new events are not violations of any laws of nature, though miraculous, not caused by existing events, but by the primal cause. Miracles should never be conceived as violations of the laws of nature. God does not violate his own laws, he simply does that which would not be done by the existing forces of nature.

The supposition of an absolute commencement, or a commencement from nothing, admits the possibility of a time, far back in the past, when there was absolutely nothing, not even the first cause; if so, non-entity sprang into entity, and cause is not the necessary condition of an event, or the doctrine of causality is a delusion, and any event may come of itself, or there is no causal connection between events, but this would destroy foresight, a firmly established fact of experience, and would disintegrate the entire universe, or rather there would never have been any universe. Lotze's expression, "absolute commencement," is unfortunate. A new series, originated by a mind, has not an absolute commencement; it is related to the mind which originates it.

Lotze held that the facts of the universe need not be wholly similar or even commensurable to be reciprocally related, and that, in the last analysis, it is not a logical, but an aesthetic necessity, that leads us to conceive a universe, all the parts of which exhibit infinite variety in perfect harmony.

If we desire to understand the inner nature of things, we must conceive them after the analogy of our own spiritual nature, as feeling beings, and this method goes deeper than the mechanical conception. Things are real beings, existing for themselves, and are not merely poetic ideas of our own creating. It may, however, be true that they are God's ideas. The all-embracing world spirit renders the universe comprehensible in the interactions of its parts, and in its relation to ourselves.

Lotze held that we can, in some degree, understand, by analogy from our own spiritual states, that the absolute world principle is a personality, since in that case only could it possess independence and originality. But in our case, personality encounters obstacles which resist our efforts and disturb our feelings; but in the all-embracing cause, feelings

are set in motion by its own activity. It may be conceived that God encounters objects, and even resistance in the finite beings he has created, and to whom he has granted some degree of independence. Free beings, within certain limits, manage themselves, and may even run counter to the will of God, as in fact man often does, and God suffers his ill manners and is thereby grieved; but can this be, if as Lotze holds, the form of time is not applicable to the Divine Being? Timeless action and timeless suffering are inconceivable.

Lotze held that matter and spirit are contradictories; but this is the case only when we consider them species under the genus substance. In this case, a substance cannot be both matter and spirit, though it must be one or the other. Passing to a higher genus than substance, matter and spirit are not contradictories, but contraries. We may conceive other forms of existence than matter and spirit, as geometric forms in pure space, or even of non-existence as opposed to both matter and spirit. Not-matter is not necessarily spirit, for it may be a form of space or a portion of time, or even nothing.

The unity of the universe makes the reciprocal action of the parts possible; and this action, which is continual, is a constant witness of a common interest and a common end—the highest possible good for the whole. The ethical principle of reciprocity is, therefore the controlling law according to which the universe is carried forward to its consummation. Lotze's system may, therefore, be entitled *Ethical Pantheism*.

Reciprocal action does not require complete homogeneity in the interacting things, or even proportionality, as the density of a body varies inversely as its extension; there is no inconsistency in supposing that interaction pertains between soul and body, and to this fact experience testifies. The connection finds its ground in substance, of which both soul and body are species, or if we prefer to say, both matter and mind are attributes.

What are the reasons for supposing a special soul substance? Two alternatives appear: psychical phenomena must be referred to a soul or to the interactions of physical forces; but personal identity cannot be explained by varying physical forces; therefore, the soul, the only alternative, remains the true explanation.

Stimuli are carried from the nerves to the brain, and the reaction of the brain is accompanied by sensations, which are signals the soul interprets, and thus arise ideas, and thoughts, and all other mental phenomena. Idealism is true so far as mental pictures are concerned, but false when it denies the external causes of sensation. Lotze, however, prefers not to call material objects, so-called, causes, but effects of mental states. They may be effects of God's mental states, but not of ours. The senses all point to something external. Even Berkeley says: "Since we are affected from without, we must allow powers to be without in a being distinct from ourselves."

The dualistic conception of the relation of body and mind Lotze regarded as a provisional assumption which will give place to maturer views; for he held that extension itself is subjective; that matter itself is nothing but the phenomenal form of interaction between inextended beings, as the monads of Leibniz, or the reals of Herbart; and that the immortality of the soul does not depend upon its nature, but on its place in the ethical order of the world. He says: "No principle can serve us here except the general idealistic conviction that every created thing, whose continued existence holds a part of the sense of the world, will continue to exist, and that everything will pass away the reality of which can find a place only in the transitory phase of the world's history." This means, if it means anything, that a person will be immortal if he can fill worthily a place in the moral realm, and if he does so fill that place, but otherwise, he will pass out of existence.

9. *Fechner* (1801-1887). Gustav Theodor Fechner was born at Lanwich. His chief studies were medicine and physics. In 1835, he was appointed professor of physics, but in a few years, he was forced to retire from his post on account of weakness of his eyes.

In his thinking, he was influenced, to a considerable extent by Wisse, as was Lotze, and with him he endeavored to construct an idealistic world conception on a realistic basis.

Fechner formed the conception that there is a definite quantitative relation between connected mental and material facts, and by working out this conception he became the founder of the experimental science of psycho-physics, or as it is otherwise called, of physiological psychology. To ascer-

tain the facts pertaining to the connection of the nervous system and mental manifestations, and to determine their laws became the work of his life.

In Fechner were found two strong tendencies—to employ the experimental method, and to give free rein to his imagination. He does not separate mind from matter, nor God from the universe, nor does he derive the world from conscious thought, or the poetic pictures of the imagination from the darkness of material things. The infinite embraces the finite, and God is immanent in the world as its life and support, just as the human spirit, by pervading the body, is its life and support. Each person is conscious of his own spiritual activities, and by analogy extends like activities to animals, to plants, and, if he pleases, to inorganic objects.

In the interaction of all things, Fechner found the basis for philosophy and religion, and thus the fact, which to some minds rendered the being of God superfluous, made the belief in his existence necessary both to Fechner and to Lotze. The concept of the world is the concept of God whose life is the life of the world. The perfection of God is seen in the unfolding and progress of the world through infinite time. Herein Fechner's view is superior to that of Lotze, who does not regard time as applicable to God.

The material and spiritual worlds are the outer and the inner aspects of Deity, the one substance with two attributes, matter and mind, which is the doctrine of Spinoza. We may see the world as a universe of matter or as a universe of mind, according to our point of view, just as an observer without a hollow sphere would see only its convex surface, while one within would see its concave; but one, by changing his point of view, would see the surface as it is, convex without and concave within.

Fechner advanced beyond Spinoza in attempting to discover an exact mathematical relation between matter and mind, the two sides of existence, or the two attributes of the one substance. He found that the changes in corresponding mental and physical states were not directly proportional, but that the change in the mental state is equal to the ratio of the change in the physical state to that state multiplied by a constant. Thus, if the change in a mental state m is dm , and the change in the corresponding physical state p is dp ,

then c denoting the constant, we shall have $dm = c dp/c$. The constant is different for the different senses. Fechner evolved this law from facts discovered by Weber from experiment, and called it Weber's Law. He did a good work in investigating the laws of relation connecting physiological phenomena with physical.

10. *Lange* (1828-1875). Freidrich Albert Lange was the son of J. P. Lange, the celebrated commentator and professor of theology at Zurich. He was a good scholar and well versed in the history of philosophy. He led an active life as teacher, author, editor, and political agitator as a reformer in social affairs. The philosophers that impressed him most deeply were Hegel, Herbart, and Schleiermacher.

Lange's principal work is *The History of Materialism*, in three volumes. It is a work of great merit, clear and candid, and to most readers, convincing. His method of treatment is to push materialism forward to its limit, showing that it finally breaks down, and ends in failure in its attempts to deduce thought from matter. A reader of his book would be likely to think, in the course of its perusal, till he reached the climax, that Lange was an advocate of materialism.

The afferent nerves carrying stimulus to the brain, the efferent carrying the response to the muscles, the obedience of the muscles to the command, frequently take place without any conscious mental action; but in emergencies, sensation is excited, thought awakened, and decision made, constituting an entirely new process, all in another realm, that of mind; and this may be followed by an outward act, again in the realm of matter.

The passage from the physical to the mental realm, or the reverse, is the great mystery. There is no consciousness till we reach sensation; and the material process is not mental, though it may be its condition. The mental process, the sensation, the thought, the whole content of consciousness, find no explication in the law of conservation of matter and energy. At this point, in Lange's opinion, materialism fails.

If the laws of matter cannot explain the phenomena of mind, can the laws of mind explain the phenomena of matter? If the passage in one direction is impossible, can the passage in the opposite direction be possible? Lange says: "While it always remained an insurmountable difficulty for Material-

ism to explain how conscious sensation could come about from material motion, yet it is, on the other hand, by no means difficult to conceive that our whole representation of matter and its movements is the result of an organization of purely intellectual dispositions to sensation."

But is the *representation* of matter identical with matter itself? One can imagine a chair. Let us call it a representation; but what is the consequence when one attempts to sit in it? A man deeply in debt, and troubled by his creditors, can imagine himself rich; but will his imaginary money pay his debts? If materialists err in believing that they can deduce mind from matter, do not idealists, on the other hand, err, in believing that they can deduce matter from mind? Matter and mind, however may be species of the genus substance, which is the ground and explanation of their connection, and the true unity of all existence.

11. *Dühring* (1833——). Eugen Dühring was born in Berlin, and was brought up in the atmosphere of free religious thought. Mathematics and astronomy were his favorite branches of knowledge. He studied for the legal profession, and entered on its practice, but was forced to abandon this vocation on account of disease of his eyes which finally made him blind. His affliction increased his natural tendency to suspicion, and to regard all who differed from him as enemies. His wife and later his son became his amanuensis.

Cut off from the practice of law, he turned his thoughts to the investigation of philosophical questions, paying especial attention to Epistemology, or the theory of knowledge. He took up the Kantian problem of the scope and limits of knowledge, and discussed it in the spirit of positive science.

His principal work he called *Natürliche Dialiktik*. This book, excellent in form and matter, is valuable on account of the light it throws on the relation of the critical to the positive philosophy. He distinguished between the principle of *sufficient reason*, a law of thought, from the wider law of reality; and this principle knocks dogmatism out. He directed attention to what he called the principle of *insufficient reason*, which requires that the burden of proof should fall on the one who proposes a new theory in conflict with that which is generally accepted as true. This hits the idealists who call upon realists to prove that things exist, as is gener-

ally believed, apart from human thought, when it is the business of the idealists to prove that they do not so exist. Realists, in meeting the challenge of Idealists should throw back the burden of proof where it belongs.

Dühring calls his philosophy, the philosophy of reality, the fundamental facts of which, as known by experience, must afford the subject matter of theoretical investigation. To throw aside the facts, and to speculate on concepts, is to leave the solid ground of reality to explore the cloudy region of the unreal fictions of the imagination.

Dühring admired the great thinkers of the seventeenth century, such as Newton, Galileo, Hobbes and Spinoza, and regarded the philosophers of the nineteenth as reactionists; but the advance of science in the nineteenth is its glory; the subjection of theory to the test of experiment is a matter of great practical importance.

In his theory of knowledge, conducted in the critical spirit, Dühring seeks to ascertain the relation of thought to reality. Thought strives to advance by continuous interconnection, and like a line, to stretch on indefinitely; but a real thing is definite, and continuation can take place only by the addition of particular reals, also definite in magnitude and in number. Pure thought is not restricted to real things. Thought, however, may restrict itself, as it does in science, to the realities of nature, save when it makes hypotheses which are overthrown by the test of facts; but confirmed hypotheses, of course, correspond to facts.

From the law of definite number, Dühring deduced the consequence that the processes of nature cannot go back in an infinite regress, and hence that nature had a beginning. From this we can deduce the further consequence that there must be an eternal creator of the universe, since non-entity cannot turn itself into entity. There may, however, be no series of facts, but they will have their origin either in the absolute first cause, or in some finite but free causes, as human beings. In the series of causes and effects, there is no absolute break or discontinuity, but the chain is connected, link by link, back to the cause at its head.

We often discover continuity in apparent discontinuity, or we may fail to find continuity by experiment where it was thought to exist. Hence science forsakes its sphere and

dogmatizes, when it says an event, not depending on any natural causes, is impossible; it must, however, be dependent on some cause; it is not an absolute commencement.

For the most part, there is a correspondence between thought and reality, or the relation of premise and conclusion corresponds to that of cause and effect. They stand related as the reason of knowing and the reason being; but the deep principle, underlying all reality, that causes nature to work, induces mind to think, and between the two, there should be harmony.

It does not, therefore, destroy the validity of knowledge, because it is the product of two factors—the objective nature of things, and the subjective nature of thought. In speculative thought, there may be disagreement between the conception and the reality, but in real knowledge, there is harmony.

Dühring held that to give a complete picture of real existence is the task of philosophy. He recognized one reality—nature and all it embraces; but in nature he included, not only phenomena, but all reality, including the first cause—the one substance, the *Deus sive Natura* of Spinoza. He assigns ends to nature, the results or final outcome, whether intended or not. The lower forms exist for the higher; the mechanical finds its end in the rational.

The resistances conscious beings encounter are the foils, which lend a charm to existence, lead to effort, promote happiness, and make life worth living.

Dühring finds the basis of ethics in sympathy. The individual realizes his highest good in society, and the consummation of human progress will be universal brotherhood.

12. *Wundt* (1832—). Wilhelm Wundt, Professor of Philosophy in the university of Leipzig, bases his psychology on physiology, and thus is a physiological psychologist. He makes physiology, however, an introduction to psychology, which he holds to be the science of immediate consciousness of phenomena.

In regard to Fechner's work, Wundt said: "The *Psychophysics* which he founded was only the first conquest on a field in gaining full possession of which there can be no more insurmountable obstacles, now that such a beginning has been made."

Wundt's work which he called *Physiologische Psychologie*,

first published in 1874, aims to accomplish the co-operation of science and philosophy, thus giving philosophy a positive basis.

Wundt wrote three volumes on Ethics: *I. The Facts of the Moral Life; II. Ethical Systems; III. The Principles of Morals and the Sphere of Their Validity.* He classifies Ethical Systems, as to *motives*, and as to *ends*. Under ethics of motives, he classes Ethical Intuitionism and Ethical Empiricism, placing ethics of feeling under intuitionism, and ethics of understanding under empiricism; but ethics of reason, he relates to both.

Under ethics of ends, he places the heteronomous systems, political and religious; and under autonomous systems he places eudemonism, individual and universal; also evolutionism, individual and universal.

Science and philosophy are not identical either in aim or method, as science deals with facts, their classification, and laws, while philosophy deals with causes and fundamental principles which account for the facts; but the labors of Wundt tend to the harmony of science and philosophy, and to their co-operation in the advancement of knowledge.

Wundt holds that the laws of our apprehension of objects, are the laws of the objects themselves, thus postulating the harmony between man and nature, manifest in their interaction.

Other important works by Wundt are *Logic, System of Philosophy, Human and Animal Psychology, Folk Psychology.*

13. *Paulsen* (1846-1908). Friedrich Paulsen, Professor of Philosophy in the University of Berlin, has written a work called *Introduction to Philosophy*, also one entitled *A System of Ethics*, both of which have been translated by Professor Thilly.

Paulsen's special merit is his success in making philosophy intelligible to the people. He has aimed to do this especially in his treatise on ethics. His historical sketch of ethics from Socrates down to the present is remarkably interesting and instructive. He has presented practical ethics in such a way as to impress its importance on the mind of his readers, and to inspire them with a noble ambition to live a higher moral life. His system may be called *Teleologic Energism*, since it teaches the duty of striving for the highest end.

In his second edition, Paulsen did not call his system utilitarianism, as he did in the first, and though admitting that morality is older than moral philosophy, yet he holds that experience decides what is advantageous or disadvantageous. The consequences of conduct stand, therefore, in his opinion, as its final justification or condemnation.

14. *Stirner* (1808-1856). Max Stirner is best known as the author of a work entitled *Der Einzige und Sein Eigentum*, which may be translated, *The Unique One and his Property*, or more smoothly, though less accurately, *The Ego and His Own*. His system is Anarchism.

This remarkable book, published in 1845, at first attracted considerable attention, but being in advance of the current thought, it sank out of sight for a generation. In the last ten years, the interest in it has revived, and it has been translated into several of the languages of Europe. An excellent translation into English, made by Steven Byington, was published by Benjamin R. Tucker, in 1907, at New York.,

Lange, in his *History of Materialism*, calls Stirner, "The man who in German Literature has most preached Egoism recklessly and logically," and says, "Stirner went so far in his notorious work, as to reject all word ideas. Everything that, in any way, whether it be external force, belief, or mere idea, places itself above the individual and his caprice, Stirner rejects as a hateful limitation of himself."

By *Ego*, Stirner did not mean the part of human nature common to all egos, but the unique personality peculiar to any individual ego. Each ego is for himself *sui generis*, the sole ego, all other egos being his own ideas. *I* then am the important reality, and as far as myself am concerned, the supreme fact, rightfully free from all law, civil, ecclesiastical, social, or moral, save my own will.

Egoism, therefore, obliterates justice, or reduces it to the will of the strongest, and logically resolves itself into anarchism, not necessarily anarchism as popularly understood, signifying disorder, robbery, bloodshed and murder, but the abolition of all law above the will of the ego. This reminds us of Hobbes who held to the egoistic view of human nature. He believed, however, that mankind would exterminate themselves unless held in check by civil law enforced by penalties.

J. L. Walker, who wrote a very able introduction to Byington's translation of Stirner's work, says: "He [Stirner] would lay aside government, but would establish any regulation deemed convenient, and for this only *our* convenience is consulted." But would not the strong oppress the weak? Stirner believes that the strong would refrain from such conduct, not for the sake of the weak, but for their own sake, knowing that it would bring the best results to themselves.

The doctrine of exclusive egoism, with its consequent anarchism, is based on the assumption of the total selfishness of the ego, which it is assumed always acts in view of its own interests. Benevolence is, therefore, rejected as constituting no original element of human nature. Let us see. Suppose an ultra egoist to have his choice between the two courses of action. He can get, say \$1,000 worth of good for himself by a certain action, and at the same time benefit his neighbor *A* \$1,000 worth, or he can get \$1,000 of good for himself, by damaging his neighbor *B* \$1,000, no other person being affected by his act, which course of conduct would he choose? If he had no regard for *A* or *B*, the choice, so far as they are concerned, would be a matter of indifference; but the egoist would answer, and this is Stirner's belief, I would take the course that would benefit *A*, because I should get more good out of that course. I would enjoy helping *A*, and regret damaging *B*. To this answer it may be replied, if you were not benevolent, you would neither enjoy helping *A* nor regret damaging *B*. To help *A* would not please you, nor to damage *B* displease. Benevolence therefore, as well as selfishness, is an ultimate element of human nature; that is, the doctrine that the ego is exclusively selfish is false. Granting that a man's motive always contains a selfish element, that does not invariably exclude benevolence. A motive is usually complex, containing more than one element. The will of the ego would answer for law only when the ego is enlightened and benevolent.

Other considerations, it must be admitted, more exclusively egoistic, may enter into the foregoing case. The egoist might say: If I help *A*, he will probably in turn, help me, or if I damage *B*, he would likely damage me, and on these considerations I act. Suppose, however, these considerations

were, by some possibility, entirely removed, still the egoist would prefer to help *A*, rather than to damage *B*, which would be a choice purely benevolent.

How would Stirner secure the weak against the encroachments of the strong? He says, page 386: "I love men too,—not merely individuals, but every one. But I love them with the consciousness of egoism; I love them because love makes *me* happy. I love because loving is natural to me, because it pleases me. . . . I have a fellow feeling with every feeling being, and their torment torments, their refreshment refreshes me too." But why? If Stirner was utterly selfish, the torment of others, or their refreshment, would be a matter of indifference. He would be neither tormented nor refreshed by their torment or refreshment; but since he is tormented or refreshed with the others, he has a benevolent heart. Egoism can be the final philosophy only if benevolence as well as selfishness, is an ultimate element of the ego, but that would be a combination of egoism and altruism.

Let us reconsider, at this point, the two kinds of quantity involved in knowledge—content corresponding to the Platonic idea or the modern concept, and extent, the class embracing objects having common content, with its subdivisions down to individuals. From Plato to Hegel, philosophers have generally attached more importance to content than to extent; but why? because content is practically invariable, except from the slow growth of advancing knowledge, while the extent is subject to continual change, and philosophers attach more importance to the permanent than to the transitory. The concept corresponding to the content, though it may be an object of thought, and gradually become more complete and perfect, cannot, by itself, be pictured by the imagination. It contains nothing subject to either pain or pleasure, while the extent embracing classes and individuals which may be improved or damaged, or suffer pain or pleasure, has value in itself, equal if not superior to that of the concept.

Take an individual, for example Aristotle. His uniqueness, that in which he differed from other men, gave him value. Disturb that, or destroy it, and Aristotle had lost his individuality and his value. Aristotle as capable of thought of will, as susceptible of happiness or misery, of pleasure or pain, had

more value than all the ideas Plato ever had, plus all the concepts of modern philosophers.

Let philosophers study, not only content and concepts but extent, classes and individuals, and seek their welfare, and they will find that people will not only listen to them with pleasure, but will profit by their instructions.

In forming alliances, as in marriage or otherwise, the fatal mistakes are made, not because of a want of knowledge of the common attributes of human nature, but because of ignorance of the unique characteristics of individuals. To know the idiosyncrasies of our friends gives power to secure our mutual welfare. It was to the uniqueness of each individual Ego that Stirner assigned such importance as to place him above all law, save his own capricious will. This can be done without danger only when all men are so enlightened and conscientious, that they not only know what is best to be done, but will not fail to do it.

CHAPTER XXXI

Philosophy of Evolution

1. *Darwin* (1809-1882). Charles Darwin was born at Shrewsbury, England. He studied medicine in Edinburgh, and theology at Cambridge, but engaged in neither of these professions, as he felt a strong attraction towards science. He joined the *Beagle* in its voyage round the world, from 1831 to 1836. This voyage settled Darwin's destiny as a Naturalist.

The following are the most important of Darwin's works: *Origin of Species*, published 1859; *Variation of Animals and Plants under Domestication*, 1868; *Descent of Man*, 1871; *Expression of the Emotions in Man and Animals*, 1872; We are especially concerned with *The Origin of Species* and *The Descent of Man*.

The importance of Darwin's teaching does not rest on the origination of the theory of evolution—that the different organic species have been produced by natural causes, for this opinion had been held by others before him, but on his method of supporting this theory, by collecting facts in the organic kingdom, indicating the action of natural causes in the production of variations leading to new species.

Darwin did not attempt to explain the origin of life by natural causes, but the origin of species by natural selection, or the survival of the fittest; for the origin of life he, at first, referred to the Creator, but later called it an inexplicable mystery.

Darwin was led to his investigations by reading the theory of Malthus, that the population tends to increase more rapidly than the means of support, and seeing that the law applied to the entire animal kingdom. Hence would arise a struggle for existence in which the fittest would stand the best chance of surviving, while the unfit would be likely to perish. The struggle for life is a means of evolution, and the qualities developed would be transmitted by heredity. The process,

continued for generations, would, by gradual accumulations, form new varieties, which, becoming permanent, are called species.

While the struggle for existence develops certain qualities, or powers, in the organisms, adapting them to their environment, natural selection, the environment itself, favors those varieties which have developed these powers. The outcome of the struggle, in some instances at least, is progress, which in case of man, means especially intellectual, moral, and social advancement.

Darwin's writings afford an illustration of the thorough application of the inductive method of investigation, and are otherwise interesting and instructive. But does the fact that two species have many features in common prove that the more advanced is the development of the other? Cannot the common features be explained from the fact of a common creator? A carpenter builds a barn, then a house. Many of the features of the barn he carries forward to the house; but does that prove that a house is a developed barn? The common builder will explain the common features. There is no proof that the primordial forms of life were few. God was not restricted in this respect. The human line, for all that we know, may have been human from the beginning; but many features of man's organism may be found in lower organisms, without proving that the lower evolved into the higher, or that man had a simian origin. Examples are wanting which, by the test of fact, would make the theory conclusive.

The origin of life has never been proved to be inorganic matter; but the method of nature is, as Tyndall declared: "Life is the issue of antecedent life." How then did life originate? The rational answer seems to be: From the living Creator. It may be asked, "How did the living Creator originate?" The answer is, the living Creator is eternal, and did not originate from anything. Events, new beginnings, have causes, but eternal realities have no causes, for if so, they would not be eternal.

Darwin discussed the effect of the disuse of certain organs, causing them to be atrophied, and finally to disappear, save a slight trace; and thus sometimes an organism reverts to a former type or simpler form.

The origin of the variations is not to be confounded with natural selection. The origin of variation, produced by whatever cause in the environment, change in the climate, abundance or scarcity of food, the presence or absence of enemies, confirmed habits, or growing intelligence, fits or unfits the animal for its habitat. Then, by natural selection, those fittest for their environment survive and transmit the fortunate variation, while those unfit finally perish. The natural selection follows the variation as a necessary consequence. The selection implies improvement as to the conditions of life.

Darwin traces the effects of natural selection between the variations, however caused. Calling the variations accidental simply means that the causes are unknown. The theory of evolution, in its broadest sense, includes the investigation both of the causes and the effects of variation.

Variations may be continuous and progressive up to the point where the organism, instincts, habits, intelligence, are best fitted for the environment, and then cease, and the animal and its descendants, remain the same as long as the environment remains essentially the same; but a change in the environment, after a lapse of time, would call for new variations, though it would meet with more resistance, on account of established organization and confirmed habits, than it would meet, if the change in the environment had been more continuous.

The survival of the fittest, so far as man is concerned, does not, in certain cases, at least, always mean the survival of those intellectually and morally the best; for the savage tribes of Africa, compared with Europeans, are fitter to survive in the malarious regions of that continent; but it holds true, take the world over, and for a long period, that the survival of the fittest means the survival of the best; and this gives, as may be inferred from the history of the past, a hopeful outlook for the future of the human race. Intelligence, morality, manhood and brotherhood, finally will prevail, and become established. This is the natural consequence of evolution, and so optimism is more reasonable than pessimism.

There is no doubt that materialists and atheists have eagerly accepted evolution as favoring their opinions; but the truth in evolution favors neither materialism nor atheism.

The Creator, regarded as imminent in nature, works the whole process of evolution, and the working of natural forces is his working, and the mode of his working is natural law. God does not violate any natural law in producing any result he may will; for his working, always consistent, is natural law; but he does certain things which otherwise would not be done, but in doing so, neither sets aside, nor violates any law; he is not a law *breaker*, but a law *maker*.

The divine working, therefore, is not to be restricted to the beginning of life, but is continued in the progress of evolution through the entire realm of nature. The processes of nature, occurring according to general laws will inevitably be attended by certain evils, but certainly by less evil than that attending continual intervention, and interruption of law, thus throwing every thing into confusion, and rendering it impossible to foresee, to anticipate, and to prepare for, the irregular and lawless changes.

The evils which are undoubtedly in the world give ample scope for the exertion of our powers in mitigating them, and for relieving the unfortunate, and for laboring for the intellectual and moral elevation of the human race. Though we may not be able to solve the problem of evil, yet we can, as Darwin has nobly said, "do our duty." To mitigate evil, to do our duty, is the best means of moral development.

2. *Spencer* (1820-1903). Herbert Spencer was born at Derby. He was encouraged by his father to think for himself, and this he was not slow to do. At an early age, he showed a taste for history and for natural science and mathematics. He worked several years as a civil engineer; but his calling was to authorship in the line of philosophy.

In accepting the doctrine of the relativity of knowledge, he followed Hamilton and Mansel, but carried the doctrine boldly forward to its consequences. He was, however, more in agreement with Mill, Lewes, Darwin and Huxley, than with the Scotch philosophy.

His study of Lyell's *Geology* led him to accept the theory of natural development, and to extend it as universal evolution; to the exposition of this he devoted his life.

Spencer's *Philosophy of Evolution*, which he called *Synthetic Philosophy*, is found in his collected works of which the following are the titles: *First Principles*, *Principles of Biology*,

Principles of Psychology, Principles of Sociology, Principles of Ethics, Essays, Social Statics, Study of Sociology, Education, Facts and Comments, Various Fragments, Inadequacy of Natural Selection, Descriptive Sociology, and Autobiography.

Spencer's originality consists in his extension of the theory of evolution to all specialized investigations, rather than in his elaboration of a new theory of knowledge. He has not, however, reconciled conflicting views, by extending the doctrines of empiricism and positivism, to all objects of knowledge, through the fact of evolution. Empirical knowledge does not embrace all that may be known. We have rational knowledge, as well as empirical.

The relativity of knowledge may mean that the objects of knowledge are related to our faculties of knowing, in which case, it is self-evident, or it may mean that our knowledge is of the relative as distinguished from the absolute. What do we mean by the absolute? If we mean the unrelated, that is, that which is not related to anything, even to our thought, it is, of course, unknown and unknowable; but if we simply mean, by the absolute, the *not-dependent*, it may possibly be an object of knowledge.

Spencer's teaching in regard to the absolute, which he calls the ultimate reality, is certainly contradictory. For he says: "The ultimate reality is of all things the most certain." He also says: "The ultimate reality is unknown and unknowable." These two statements, irreconcilable as they appear, may be accounted for by the fact that knowledge is of two kinds: *rational*, and *empirical* or *positive*.

That the ultimate reality is of all things the most certain is rational knowledge; it is known by reason; for if there were no ultimate reality, there never would have been anything. But the ultimate reality is unknown by sensation and perception; that is, it is unknown empirically, or as positive knowledge. How easily might Spencer have reconciled the conflicts in philosophy, between the empirical and rational schools, had he admitted the authority of rational intuition in consistency with his own teaching that what is intuitive to the individual was empirical to the race, the faculty of rational intuition being gradually evolved by the long experience of mankind; yet it could not have been evolved had there been no faculty to be developed; but however, formed, the individual has now the faculty of rational intuition.

If the absolute, as the first cause, the ultimate reality, is of all things the most certain, as Spencer declares, it certainly is not unknown and unknowable. Spencer probably meant that it is unknown and unknowable, as to its essence and the mode of its existence, and not as to the reality of its being. We know that the first cause *is*; we know that it is eternal; we know that it is the ultimate power in the universe; our knowledge of it is positive, not negative; and Spencer himself calls it "an object of religious sentiment." Well did John Stuart Mill say: "Spencer has a prodigious amount of knowledge of the unknown and unknowable."

Spencer attempted to find a philosophic basis for the reconciliation of science and religion. Assuming that there is truth in each case, there must be fundamental agreement. The basis for reconciliation, he declares, is the tacit conviction that the ultimate truth for both is an insoluble mystery, utterly inconceivable, and therefore unknowable. Inconceivable it is to the imagination, but not unknowable to the reason. Spencer's doctrine amounts to this: The power which the universe manifests, and which we, therefore, know to exist, is wholly inconceivable, and therefore unknown and unknowable. The apparent contradiction, that the ultimate reality is both known and unknown, may possibly be reconciled by a restatement: The power, or ultimate reality, is known by reason to exist as a reality, but is wholly unknown empirically as to its essence.

The essential realities corresponding to religious and scientific ideas are expressed by the words—God, creation, soul, matter, time, space, force. If the realities expressed by these terms are wholly unknown, then we cannot distinguish between them; but we do distinguish. These terms, therefore, have not the same meaning. Space is not time, and neither space nor time is force. We know by experience, as when we lift a weight, what force is, though we may not know the essence of the substance which exerts force.

Spencer's criterion of knowledge is conceivability; that is, what is inconceivable is unknowable, thus making the imagination, which is the picture forming faculty, the test of knowledge; but it is not the business of the imagination to test truth, but to make mental pictures, and as a poetic power, to give us aesthetic satisfaction.

Let us apply Spencer's test of conceivability to the idea of space: We cannot conceive space as necessarily finite; for we can imagine space beyond any supposed limit. We cannot conceive space as infinite; for to imagine an infinite picture is impossible; therefore space, whether finite or infinite, is inconceivable, and therefore, according to Spencer's doctrine, unknowable. So much for making the imagination the test of knowledge.

Now, let us apply to our idea of space the test of reason. We have clear ideas of body and motion; but neither body nor motion is possible without space, the room for body and motion. We then have the idea of space as that which contains body, a part of which the body occupies, and through which it moves. Space, then, is a reality, though not a substance; it is extension in three dimensions, whether empty or filled; yet the filling is not the space, but the filled is a part of space.

We know by the law of contradictories, that space is either finite or infinite. Let us see what reason declares with respect to its finitude or infinitude. If we suppose space finite or limited, the limit, if infinitesimal in thickness, would inclose a finite portion of space, leaving an unlimited portion without; if the boundary has finite thickness, it occupies space, still leaving unlimited space without; if the enclosing boundary has unlimited thickness it occupies unlimited space; hence in any case, the whole of space cannot be limited or finite, and is, therefore, infinite, and this is known to be true though not picturable by the imagination. Reason therefore apprehends space to be infinite. We know first, by the law of contradictories, that space is either finite or infinite; we know next that it is not finite; therefore, we know that it is infinite. Conceivability is not, therefore, the test of truth; for we cannot, by the imagination, conceive space to be finite, neither can we conceive it to be infinite; but it must be either finite or infinite.

We repeat: If by the absolute, we mean the unrelated to anything else, even to thought, it is, of course, not known to exist, and the assumption of its existence is utterly groundless; but if, by the absolute, we mean the *non-dependent*, it is not necessarily unrelated to thought, and may be rationally known. The dependent must be dependent on something,

otherwise it is not the dependent; but that on which the dependent depends is either independent or dependent; if independent, we have found the absolute; if dependent, we go back further, either in an infinite series, which has no ultimate support, or as a whole, is dependent and dependent on nothing, which is impossible, or back, till we reach an independent basis, and hence the absolute. To know the dependent, or the conditioned, is, therefore, to know the existence of the independent or the non-conditioned, that is, the absolute. It is, however, to be remembered that we may know the conditioned empirically, while we must know the unconditioned rationally; we may know the relative, as an event, empirically, and if its immediate cause is relative, we may know that empirically; but the ultimate cause, we must know rationally. Sound epistemology requires both empirical and rational knowledge.

Spencer gives the *rationale* of explanation thus: To explain a given fact is to reduce it to a more general fact, and that to a still more general fact, and so on, till we reach an ultimate fact, which cannot be further reduced, and is, therefore, inexplicable, and hence unknowable. We must, therefore, conclude that all so-called knowledge rests on the unknowable; hence no knowledge is possible, if the ultimate is unknowable.

Spencer, however, would say we know the relation of the fact to the more general fact, which proves that all knowledge is relative; but the more general fact depends on a fact still more general, and so on till we reach the ultimate fact, which, as inexplicable, is unknowable, and then nothing is truly known. Thus we are led to the nescience of Hamilton and Mansel, who, for the lack of knowledge, fell back on faith; but faith though going further than knowledge, requires a basis of knowledge. We cannot have faith in an object, about which we know nothing. Absolute ignorance affords no basis for faith.

The demonstration of a necessary truth, as in Geometry, requires, for its ultimate basis, a self-evident necessary truth. As the basis is ultimate, it is not proved, and must, therefore, be self-evident, or not known at all, but if not known at all, the entire demonstration fails; the ultimate basis must, therefore, be self-evident. The ultimate basis must be a necessary truth, and not a contingent fact; for if contingent,

it might possibly not be at all, and again the demonstration would fail; the basis must, therefore, be a necessary truth, if the demonstration be possible; and the ultimate basis must be, at once, apprehended as self-evident by the insight of rational intuition.

Let us try, in another way, to reach the ultimate of thought, though declared by Spencer to be inexplicable and unknowable. We may begin with any object, either mineral, vegetable or animal, say, for example, the class quadruped. What is implied in thinking quadruped as existing? We answer the thinking subject and the class quadruped, at least as an object of thought. We call the subject *I*, or the *ego*. The object thought of is a class or collection of individual objects, and may be defined thus: Quadrupeds are vertebrates having four feet. We now have the wider class vertebrates, which includes quadrupeds and all other animals having a skeleton. Quadrupeds are not dropped, but only their determination, their characteristic attribute; their existence is retained without specification, along with the existence of all other vertebrates. The extent has been increased, while the content has been diminished. The *ego*, conscious of its thinking, remains. Suppose we say vertebrates are animals; we increase the extent, diminish the content, and retain the existence of the class, making it wider, and the existence of the *ego*. Let us now say animals are organized beings; we increase the extent, by taking in vegetables, without dropping animals, and decrease the content, retaining still both the object and the *ego*. Let us say organized beings are beings; retaining the *ego*, we have dropped from the content every attribute but existence, and have taken in every object in the universe. Does being equal nothing, as Hegel asserts? No; it has for its content one attribute, existence, and for its extent every object of the universe including the *ego*, who thinks being. Being equals everything existing.

Is being unknown? No; although it is inexplicable, in the sense that it can not be referred to a wider class, it is known immediately in itself and along with the *ego* which knows its existence. Were it possible to drop existence, everything would vanish, including the *ego*, leaving nothing to know and nothing to be known—a perfect blank. We could not even assert the blank; for to assert would call back the *ego*,

even supposing it annihilated; but it is not annihilated; for to deny existence is to assume the ego that denies. To deny reality is, therefore, contradictory, since it assumes reality.

Even if we could deny objective existence, we could not deny, without self-stultification, the ego, or subjective existence. If we could drop being, we would annihilate ourselves, and could neither affirm nor deny anything. To deny existence, is to assume existence, paradoxical as it may seem, since thinking, even in the form denying, implies self. Thinking existence away, is thinking self away, which is impossible. Existence, therefore, cannot be thought away. But can not all objective existence be thought away, leaving subjective existence? That would require the ego to be self-existent, self-dependent, or absolute; but the finite ego knows itself as consciously dependent; it is, therefore, not the absolute. The dependent, however, must depend on something else, and *that*, if dependent, must depend on something else, and so on, either till we reach the independent, or on, in an infinite series of dependent things, but dependent without an independent support, which is impossible, and if so, we must finally reach the independent, the absolute, not absolute in the sense of the unrelated, but absolute in the sense of *not-dependent*. The absolute is, therefore, not unknown and unknowable; for knowledge of the dependent implies the knowledge of the independent or the absolute. The knowledge of the absolute opens the way for valid knowledge of other reality, subjective or objective, and we are not driven to the monstrous absurdity that all knowledge depends on the unknown, and hence is not knowledge at all. Though the essence of the ultimate reality is unknown, and perhaps unknowable, its existence is certainly known, and this is probably what Spencer meant, when he declared it to be of all things most certain, though inconsistently calling it unknown and unknowable. There is therefore a known positive basis both for science and religion, which are reconciled by the known ultimate, not the unknown.

Spencer defines life thus: "Life is a continual adjustment of inner relations to outer relations." A more complete definition is the following:

Life is the active cause which adjusts the inner relations to the outer, and the outer to the inner, and each relation, whether outer or inner, to any or to all the others.

Spencer's definition of evolution runs thus: "Evolution is an integration of matter and concomitant dissipation of motion; during which the matter passes from an indefinite, incoherent homogeneity to a definite coherent heterogeneity; and during which the retained motion undergoes a parallel transformation."

What are matter, motion, and force? Spencer says: "The interpretation of all phenomena in terms of matter, motion and force is nothing more than the reduction of our complex symbols of thought to the simplest symbols; and when the equation has been brought to its lowest terms, the symbols remain symbols still." Again, Spencer says of Spirit and matter, in the last sentence of his *First Principles*: "the one is no less than the other to be regarded as a sign of the *Unknown Reality*, which underlies both." This reminds us of Spinoza's *One Substance* of which mind and matter are attributes. If "matter, motion, and force are but symbols of the Unknown Reality," does not this reality reveal itself to us through these symbols, and, to some extent at least, become known? From the order of the universe, it may be inferred that the ultimate reality is intelligent power manifested in matter, mind, force, and motion.

Again, Spencer says: "A power of which the nature remains forever inconceivable, and to which no limits in Time or Space can be imagined, works in us certain effects. These effects have likeness of kind, the most general of which we class together under the names of matter, motion and force." This reduction of matter, motion, and force to subjective effects wrought in us, looks like what Spencer calls "the insanity of idealism." If effects wrought in us can be logically referred to any cause, that cause, so far forth, is not wholly unknown, though Spencer may see fit to call it unknown, and yet it may not be wholly known. We may know that it is, though we do not know *how* it can be.

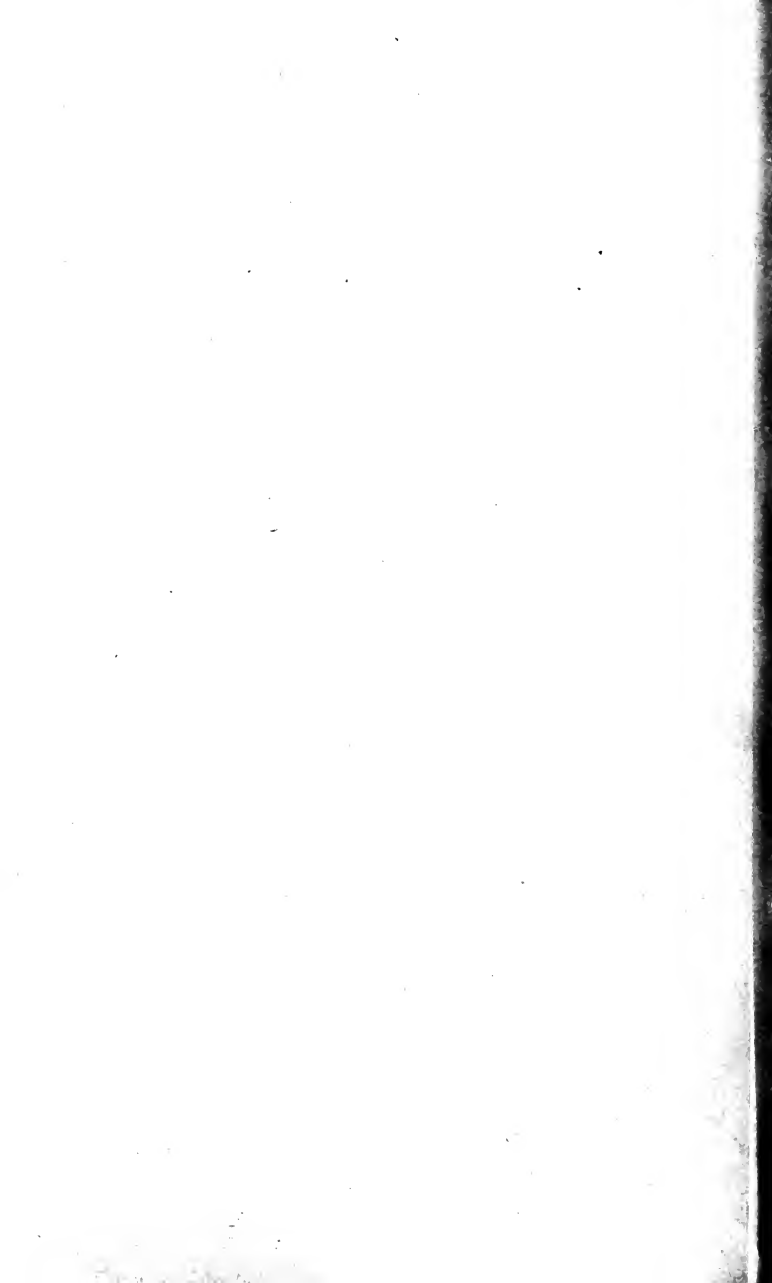
Spencer's attitude towards religion he thus expressed: "However untenable may be any or all of the existing religious creeds, however gross the absurdities associated with them, however irrational the arguments set forth in their defense, we must not ignore the verity which, in all likelihood, lies hidden within them. The general probability that widely spread beliefs are not absolutely baseless is, in

this case, enforced by a further probability due to the omnipresence of the beliefs. . . . We may be sure, therefore, religions, though even none of them be actually true, are yet all adumbrations of the truth."

The greatest service Spencer has rendered mankind is in the line of Sociology and Ethics. He was a great generalizer, and possessed the power of clear statement, so that his books are readable, as well as instructive. The drift of his mind is seen in his attempt to bring all science under the law of evolution.

Spencer held that the power of rational intuition has been developed in man by evolution through the long ages of human experience. The acts of intuition have, no doubt, by reflex action, modified the nervous system, and built up an organic basis in the brain for further and clearer apprehension, so that fundamental truth, as the necessity of an ultimate reality, is now intuitive to the individual, though the ability to apprehend it has been gradually acquired by the experience of the race. The individual has, therefore, now the power of rational intuition, so that he can apprehend, as axiomatic, the principles: Space is infinite; time is infinite; every event must have a cause; there must be an ultimate reality.

NOTE: Philosophy has many votaries in America, where it has been assiduously cultivated by a good number of original thinkers; but, at least for the present, it is thought best to defer entering into this field, however inviting it may appear.



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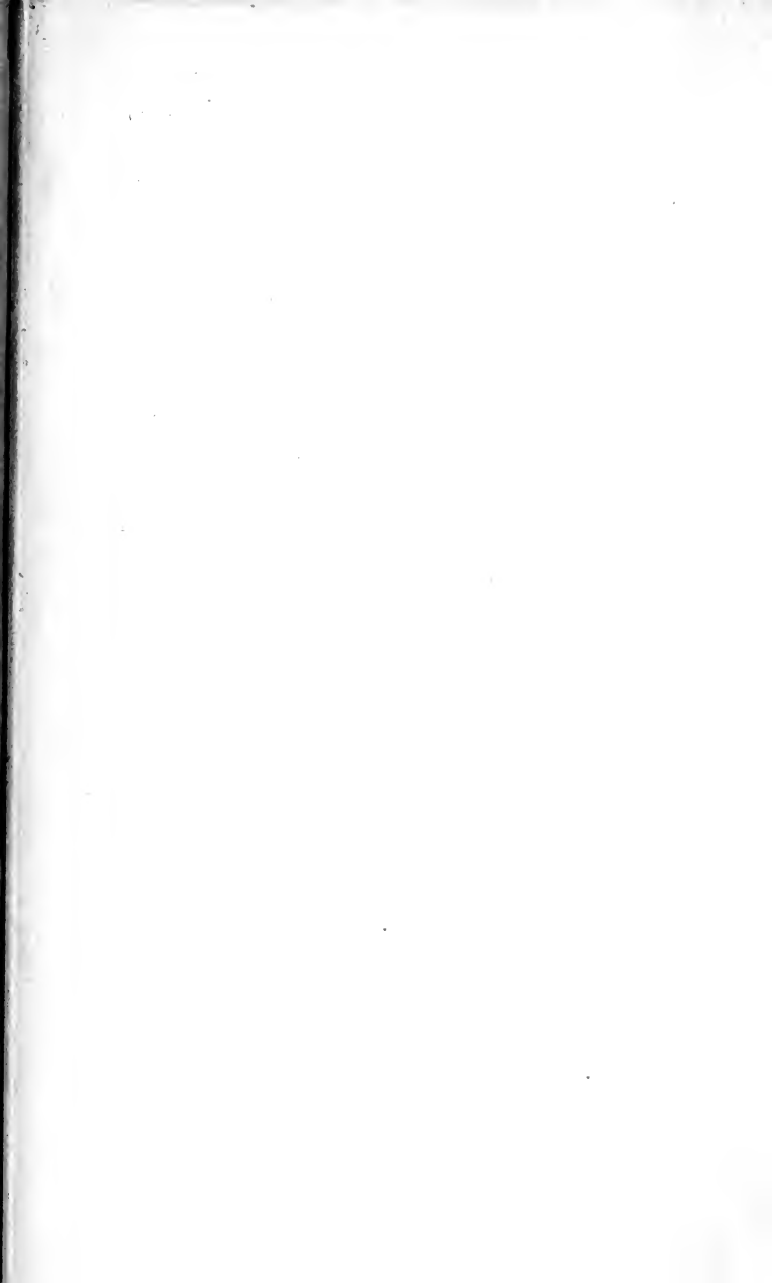
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